ARCHITECTURE PORTFOLIO

BRIANNA RAMEY

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[Architecture Portfolio]

Bachelor of Architecture Student
Wentworth Institute of Tecnology

2024

BRIANNA RAMEY

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EDUCATION

[2020-2024] **WENTWORTH INSTITUTE OF TECHNOLOGY,** BOSTON MA
Bachelor of Science of Architecture - Urbanism Concentration
Cummulative GPA - 3.8
Graduated April 2024

[2016-2020] **BLUE HILLS REGIONAL HIGH SCHOOL,** CANTON MA
Diploma in Architectural Drafting
Cummulative GPA - 3.9

PROFESSIONAL EXPERIENCE

[JAN '23-AUG '23] **ARCHITECTURAL INTERN,** PAUL LUKEZ ARCHITECTURE, SOMERVILLE MA
- Assisted Project Managers in designing projects of various scales and detail ranging from house renovations to large-scale corportate office interior design by creating plans, sections, details and 3D models in Revit or AutoCAD
- Developed graphics and illustrations highlighting design concepts, provided renderings, modeling, and graphics for architectural competitions, research, business development and marketing related activities using Adobe and Revit.

[SUMMER 2022] **ARCHITECTURAL INTERN,** DANA FARBER CANCER INSTITUTE, BOSTON MA
- Worked directly with users to facilitate the process of schematic design of office and floor renovations in the heathcare setting, and developed CD sets, coordinating and assembling detail drawings within multi-phase projects
- Followed projects through construction coordination with multiple in-house teams and punch-listing
- Created and piloted the development of a tool to analyze and chart the remote work data of Dana Farber's staff, leading to multi-million dollar reconfigurations and master planning renovations

[2019-2022] **ARCHITECTURAL CAD DRAFTER,** PIONEER CUSTOM BUILDERS & DEVELOPERS, ROCKLAND MA
- Used AutoCAD system to draw kitchen and custom millwork drawings as well as plans, sections, and detail construction drawings for numerous buildings within 55+ Residential Communities
- Collaborated with senior designers to create efficient designs and draft full sets of construction documents for various projects while following complex project design specifications
- Coordinated architectural construction drawings for each phase of projects, managed drawing sets and templates

[2022- PRESENT] **PEER TUTOR,** WENTWORTH ARCHITECTURE DEPARTMENT, BOSTON MA
- Provided academic support and taught architecture students new digital techniques to solve design problems
- Guided students through practice problems using technical softwares, answered questions about concepts

[2020-PRESENT] **STUDIO MONITOR,** WENTWORTH ARCHITECTURE DEPARTMENT, BOSTON MA
- Provided leadership in Studio on evenings and weekends when faculty and staff were not present
- Maintained order and promoted Architecture Studio Guidelines and adherence to safety rules

SKILLS

[3D MODELING & DRAFTING] Revit, AutoCAD, Rhino, SketchUp, Bluebeam

[ADOBE SUITE] Photoshop, Illustrator, Indesign, Lightroom

[RENDERING] Enscape

[MODEL MAKING] Laser Cutting, 3D Printing

ACHIEVEMENTS & EXPERIENCES

[FALL 2023] **STUDY ABROAD**
Barcelona, Spain

[2020-PRESENT] **NATIONAL CO-OP SCHOLARSHIP RECIPIENT**
WACE - Advancing Cooperative & Work-Integrated Education

[2020] **VALEDICTORIAN**
Blue Hills Regional High School

PROLOGUE

My hometown, like many of the places we grow up, faced a severe lack of safe spaces for young people to dwell. We'd often congregate in the woods or at the local corner store - makeshift hangouts that lacked security and belonging. In 2016, the Randolph Intergenerational Community Center was built, providing the youth with a world of new opportunity. Suddenly, there was a place where everyone felt welcome, where we could play sports and socialize without fear or judgment. It was then that I realized the power of architecture to unite communities and solve social problems. This realization fueled my passion for architecture, driving me to pursue a career where I can create spaces that positively impact society.

Architecture has evolved beyond mere buildings; it now serves as a pathway to societal well-being. It addresses pressing issues such as population growth and climate change, offering solutions that enhance lives and environments. As I delve deeper into the field, I recognize its potential to shape the future. From sequestering carbon emissions to designing public infrastructure that promotes health and community, architects wield immense influence.

With my architectural education, I aspire to be a catalyst for positive change, particularly in underserved communities. I want to leverage my skills to create meaningful spaces that empower individuals and uplift communities. By addressing social disparities and advocating for inclusive design, I aim to leave a lasting impact on society, contributing to the transformation of neighborhoods and cities with thoughtful and impactful architecture.

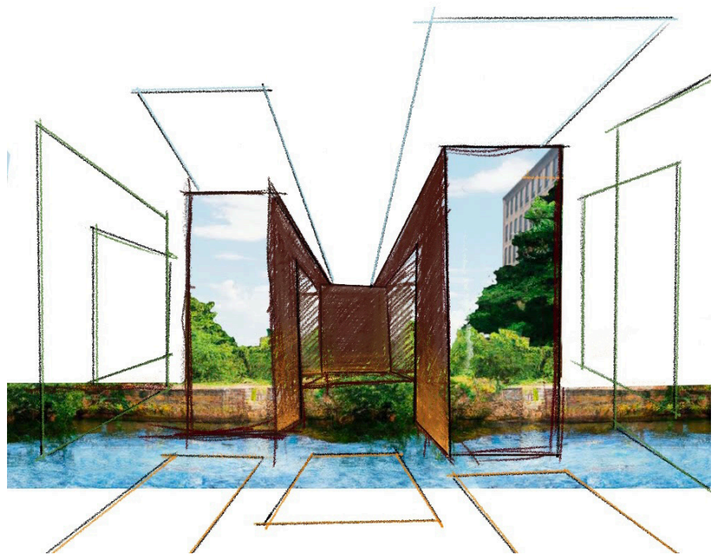
TABLE OF CONTENTS:

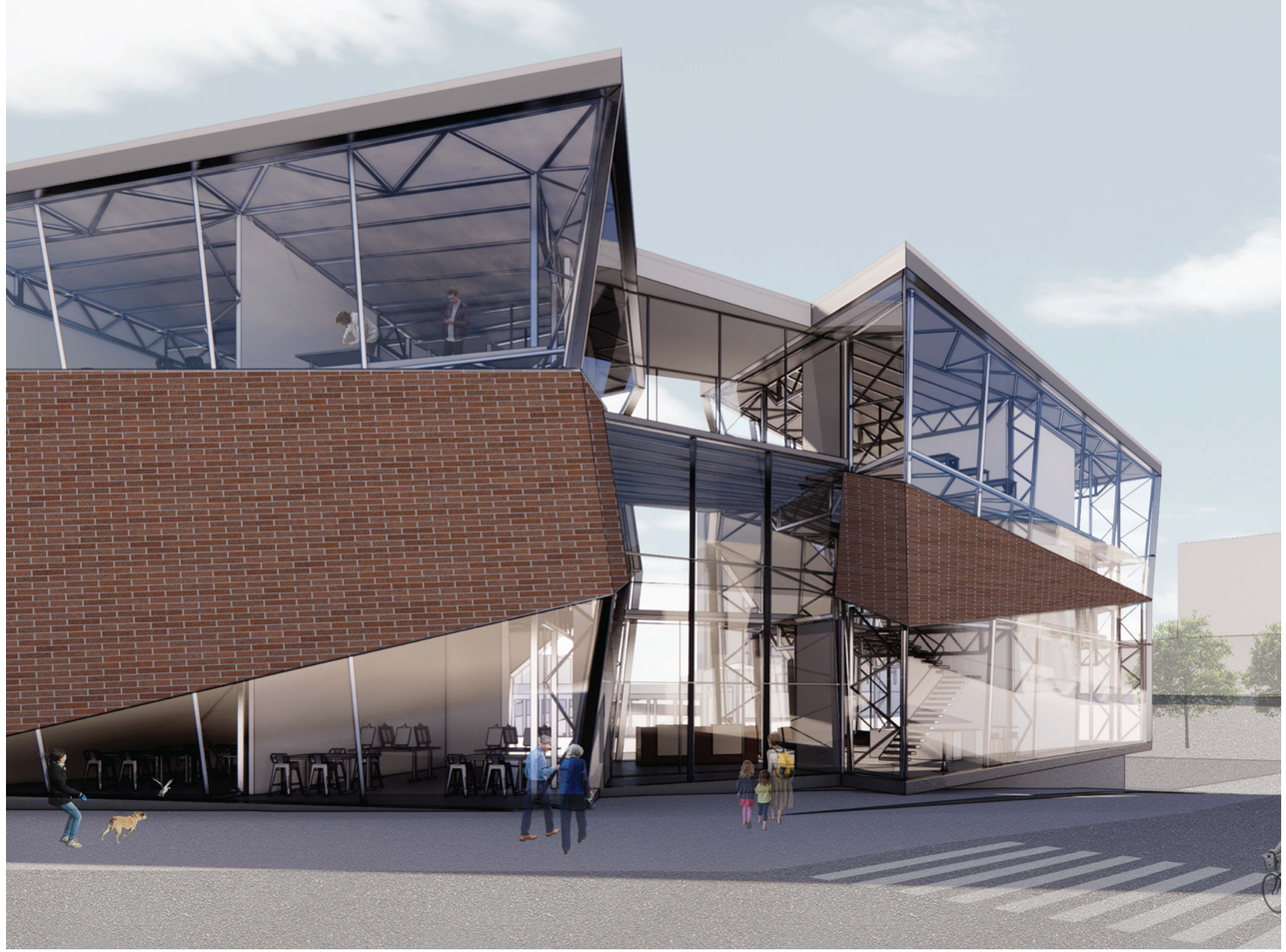
01

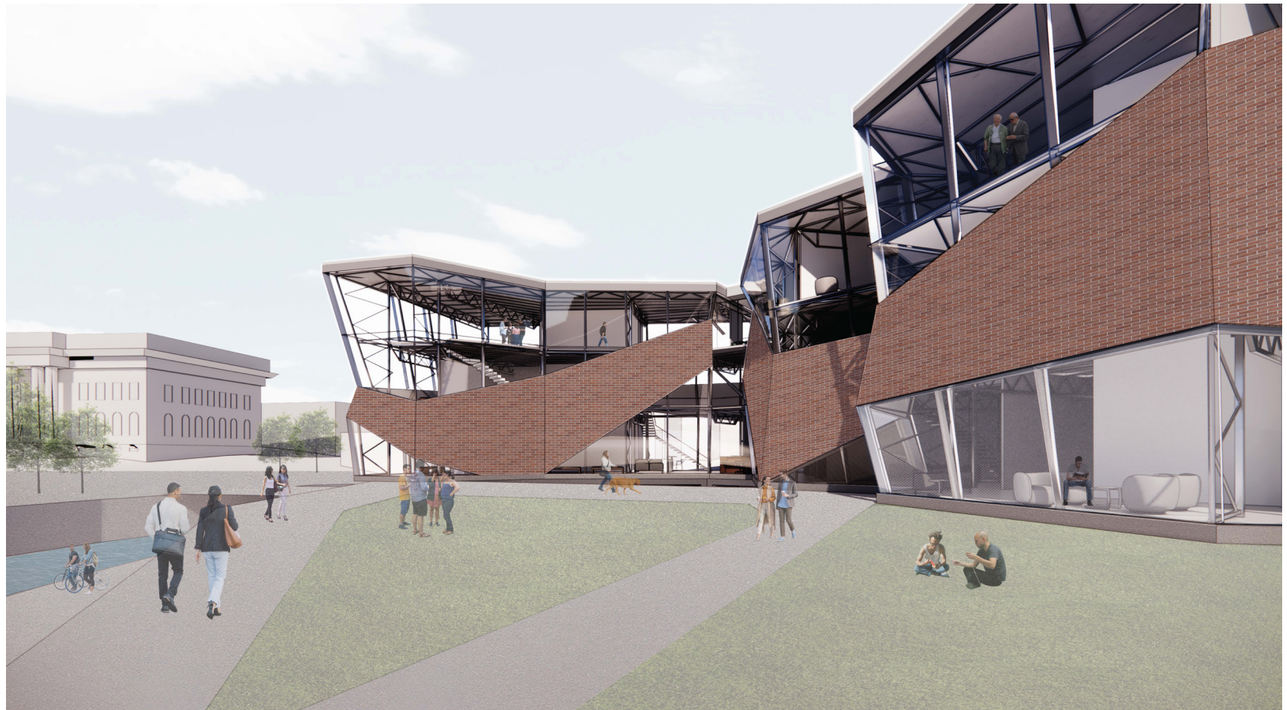
COMPREHENSIVE DESIGN STUDIO - MAKERSPACE:
LOWELL, MASSACHUSETTS: STUDIO 06 - SUMMER 2023
IN COLLABORATION WITH J. HARRISON

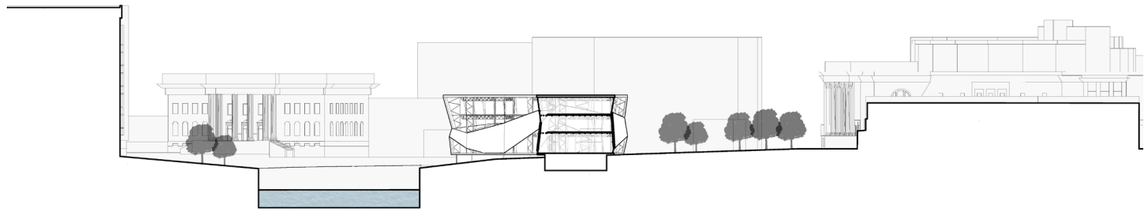
The “Building Connections” makerspace in Lowell seamlessly intertwines the city’s rich industrial history with a forward-thinking spirit of innovation. Nestled along the Concord River, the design employs facade and structural strategies that harmonize innovation and industry while maintaining a strong visual link to nature. Embracing Lowell’s architectural legacy, the facade exudes timeless craftsmanship, while curtain wall systems foster transparency and connectivity with the community. This creative ecosystem extends Lowell’s economic and cultural growth into suburban neighborhoods, revitalizing the riverside area as a continuous greenway experience.

The design accommodates various craft and studio spaces, catering to people of all ages and interests. Situated amidst greenway paths and the downtown district, the makerspace offers proximity to water and parking, enhancing accessibility. The formal concept revolves around activating the waterfront edge, with a public gallery juxtaposed against practical maker spaces. Trusses and varying angles articulate dynamic interior and exterior spaces, embodying the spirit of creation. The program encompasses versatile spaces, from galleries and meeting rooms to studios and lounges, fostering collaboration and creativity. Overall, the makerspace embodies a dynamic, inspiring environment, poised to shape the future of innovation in Lowell.

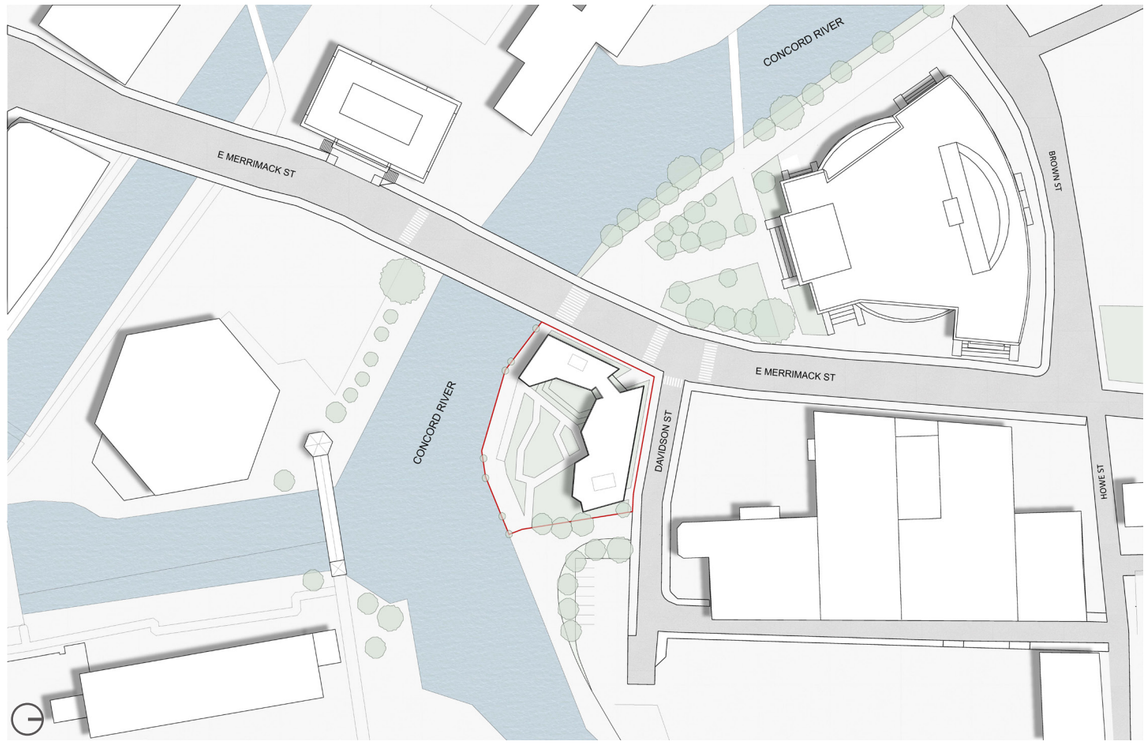








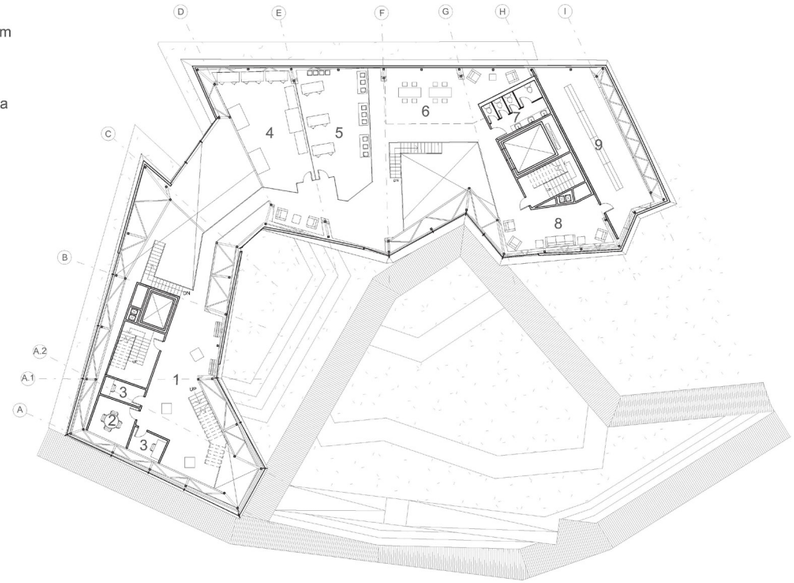
Site Section



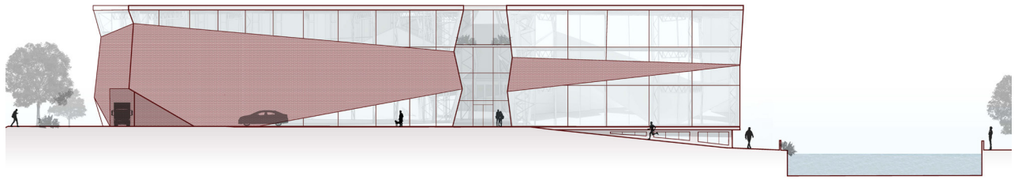
Site Plan

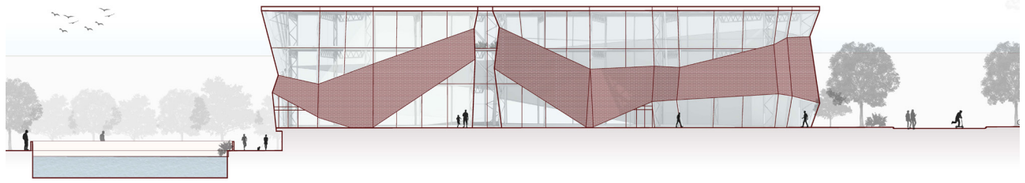
Structural and enclosure concepts prioritize transparency, natural light, and panoramic views, fostering a seamless connection with the surrounding environment. By integrating environmental control strategies like a VAV system and leveraging solar heat gain, the design ensures sustainability while enhancing user comfort throughout the space. This approach promotes a harmonious relationship between indoor and outdoor environments and also underscores the makerspace's commitment to environmental and occupant well-being.

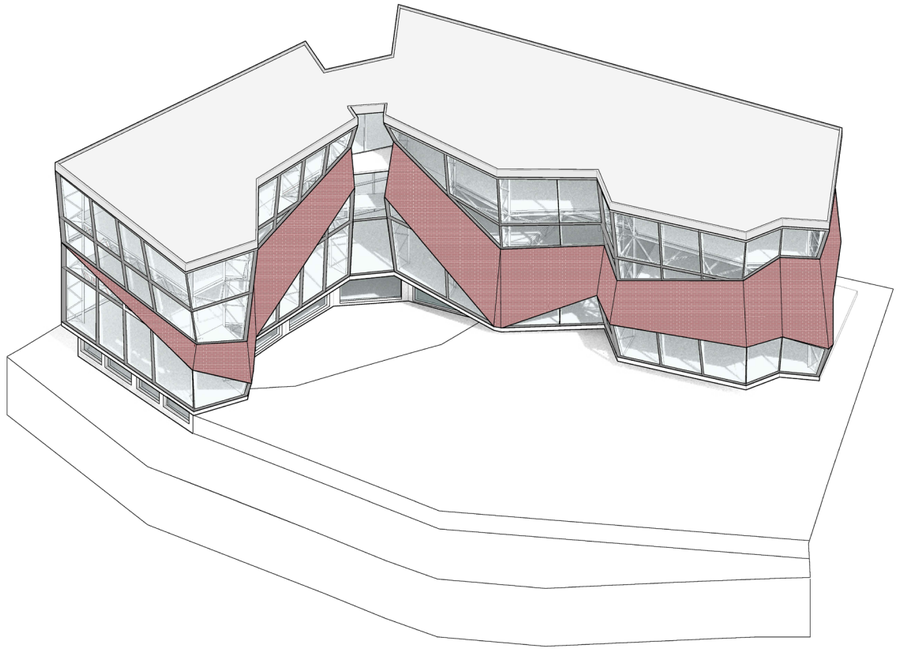
1. Gallery
2. Conference Room
3. Offices
4. Laser Lab
5. 3D Printing Lab
6. Open Collab Area
7. Bathroom
8. Seating Area
9. Storage

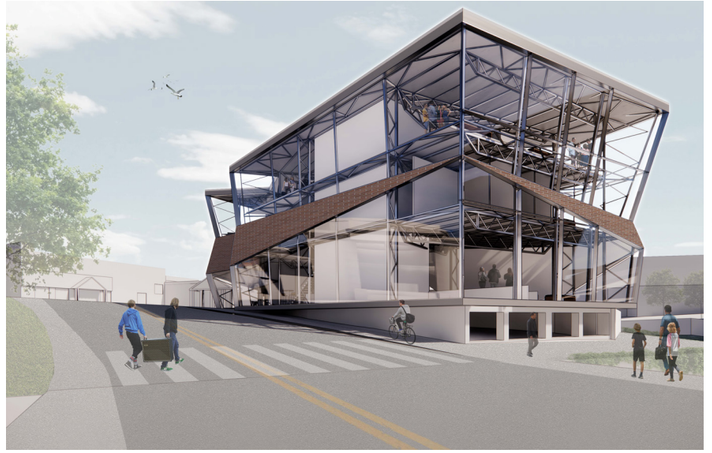


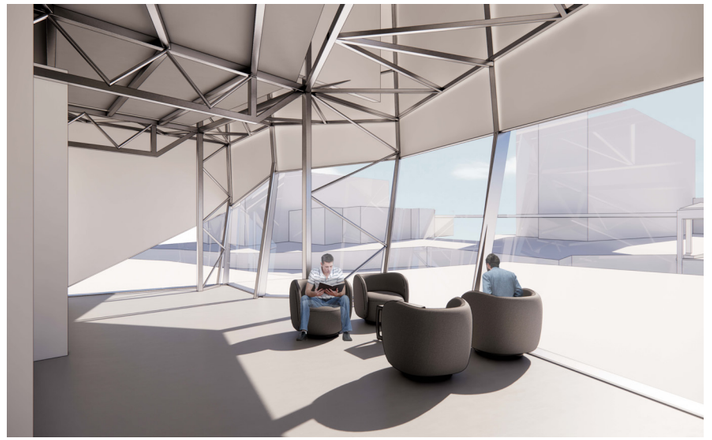
1. Gallery
2. Electric Closet
3. Cafe/ Lounge
4. Lobby
5. Painting & Craft Studio
6. Wood Working Shop
7. Kiln Room
8. Pottery Studio
9. Public Gathering Space
10. Pottery Storage
11. Bathroom
12. Loading Dock

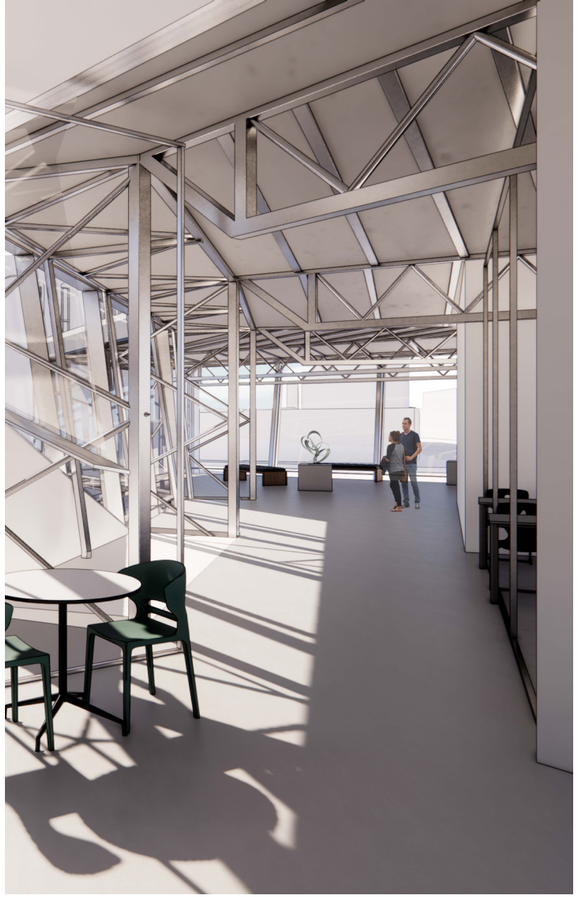


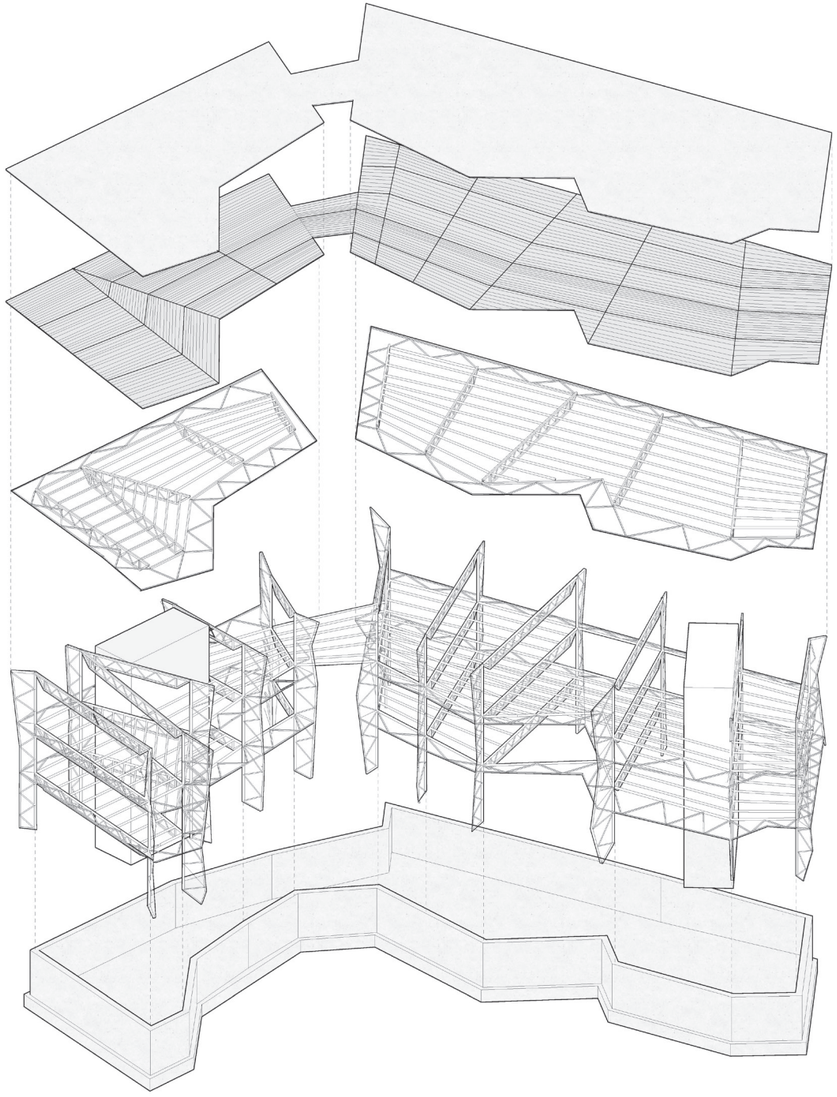




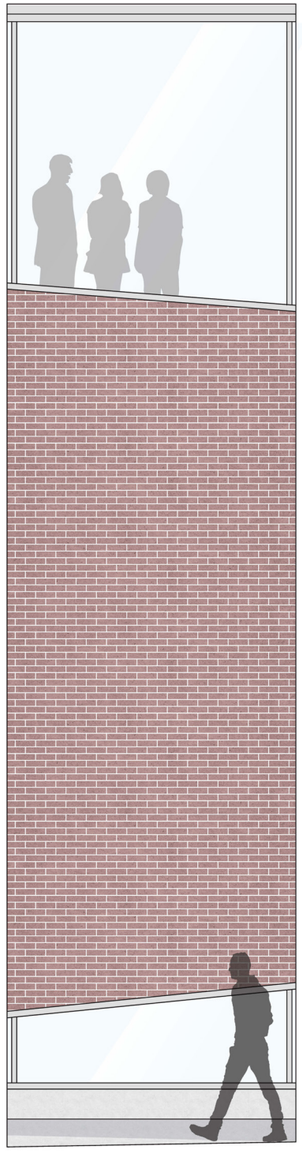


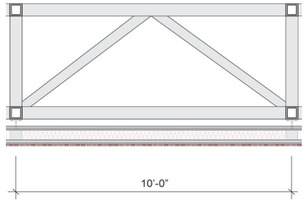


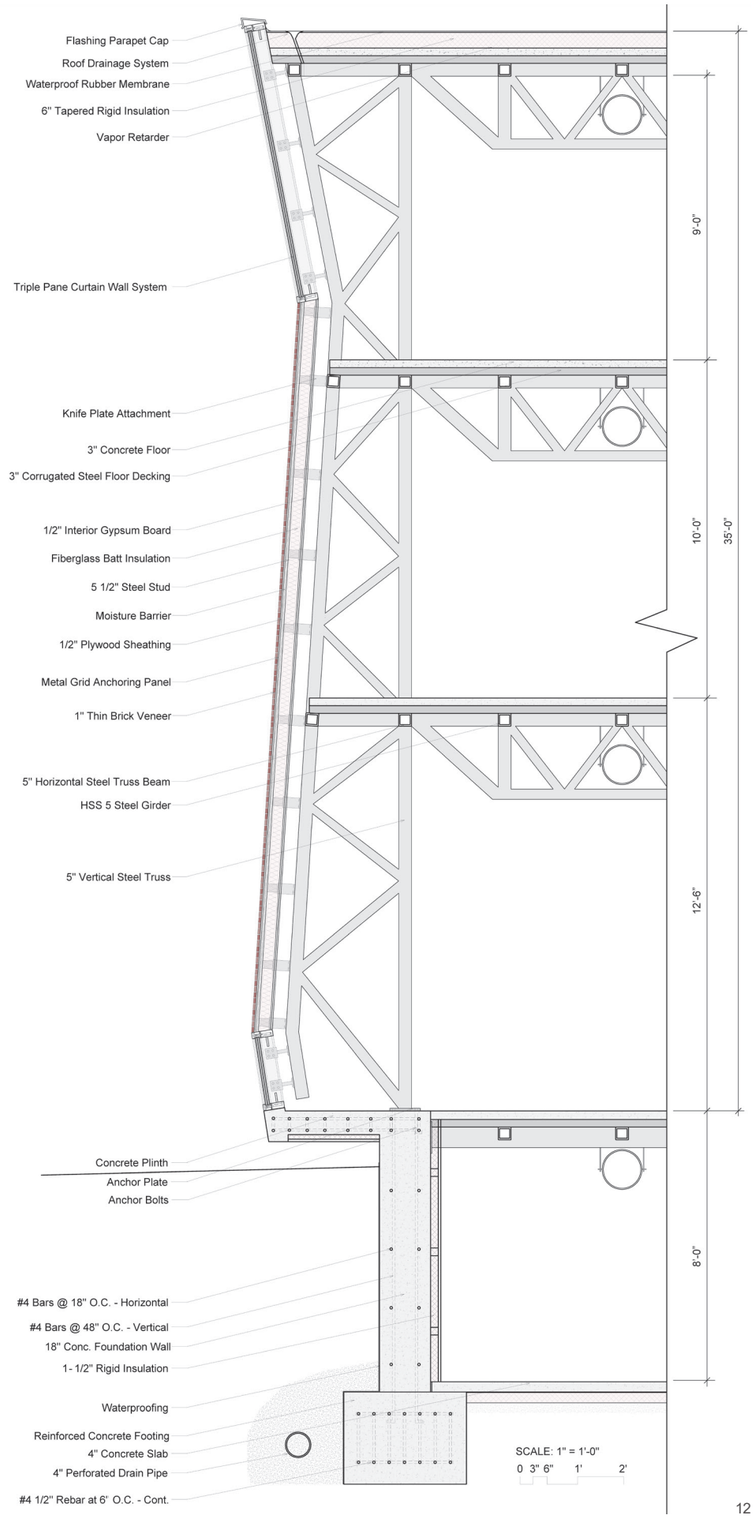


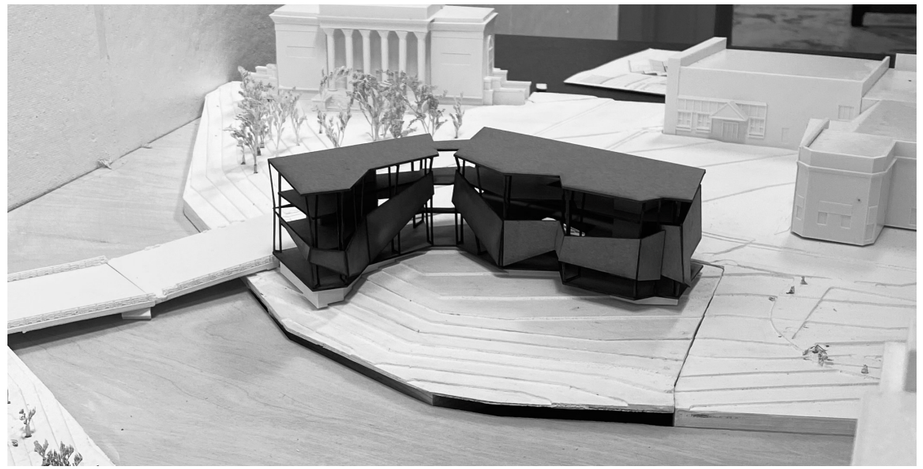


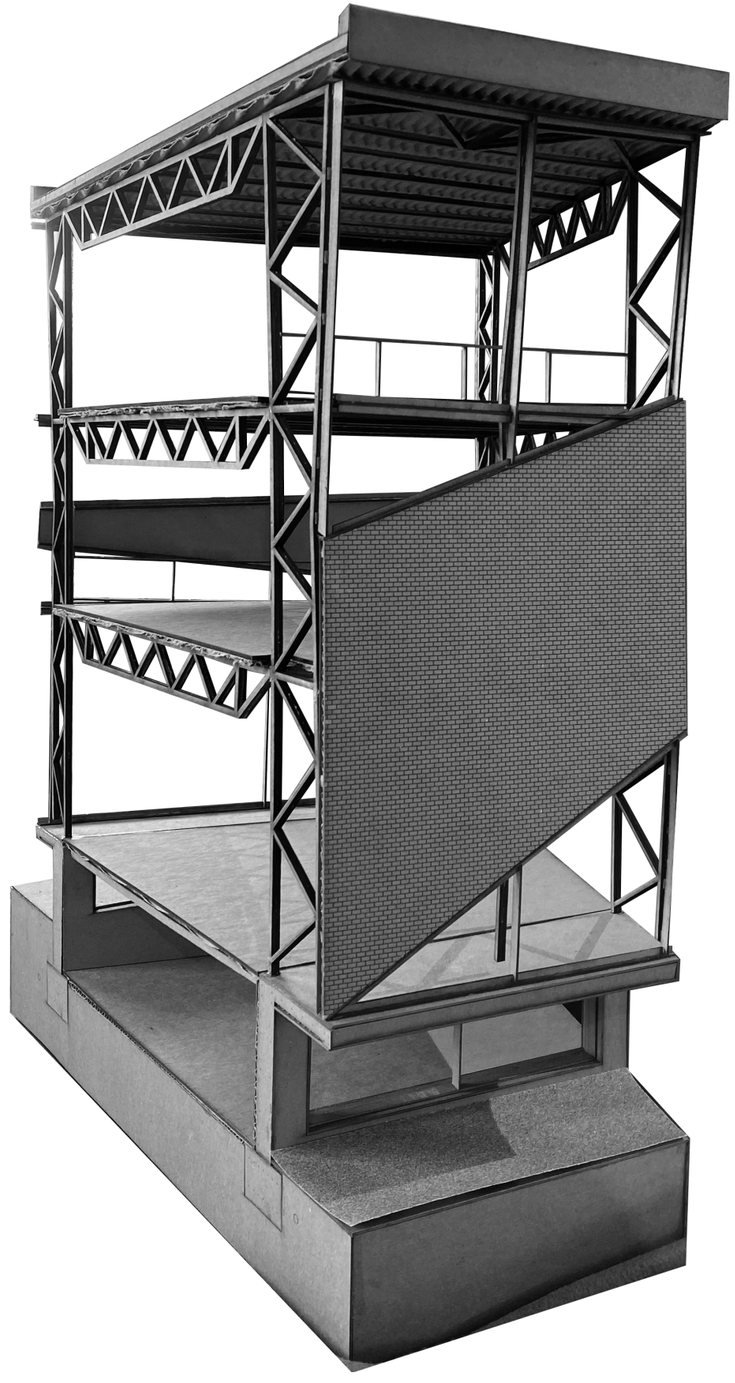
Structure Exploded Axon











02

URBAN CHAPEL & CEMETERY

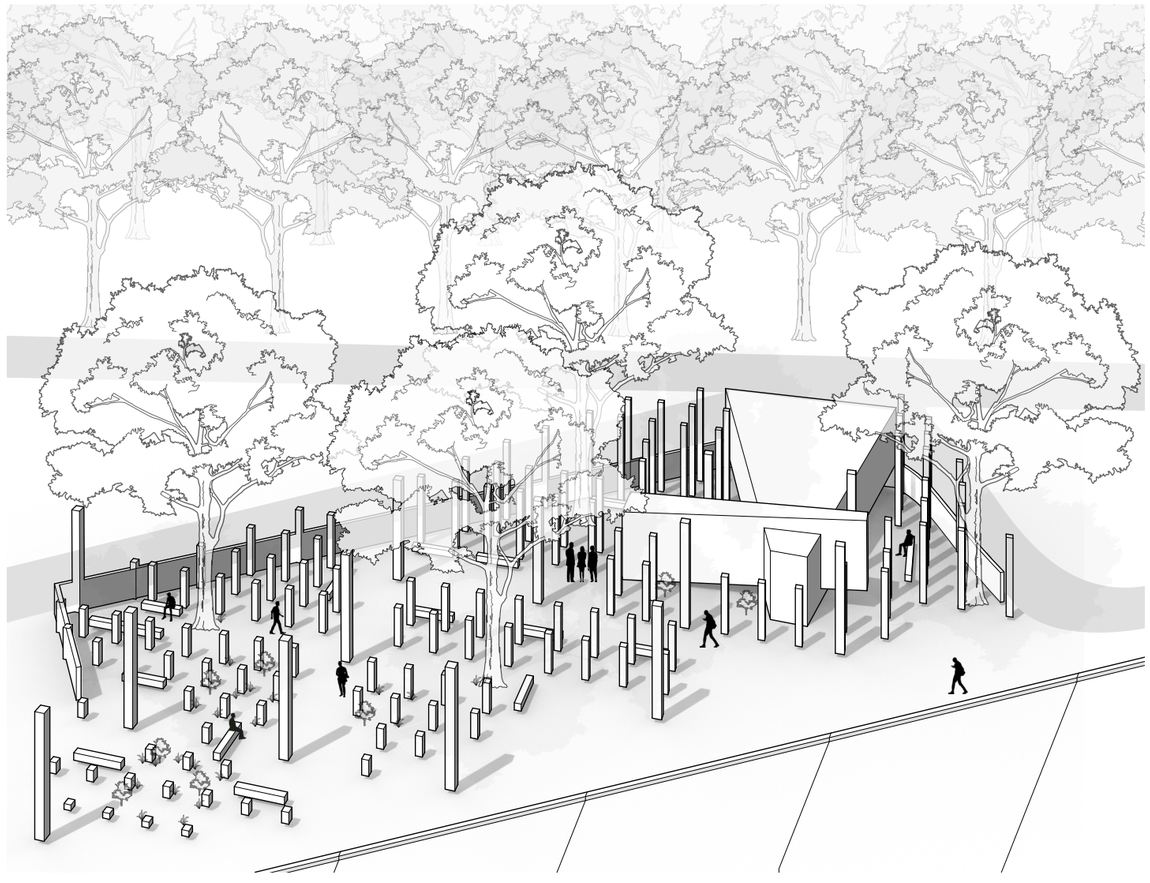
GIRONA, SPAIN: STUDIO 07 - FALL 2023 ABROAD

This chapel and cemetery are positioned at the juncture of a major park and the city, seamlessly extending the tranquility of nature into urban surroundings, offering much-needed moments of respite. A visual and symbolic link is forged with the neighboring park through a grid of funerary monuments that harmonize with the rhythm of distant trees. On-site trees form a loose canopy, providing shade and reinforcing the connection to nature.

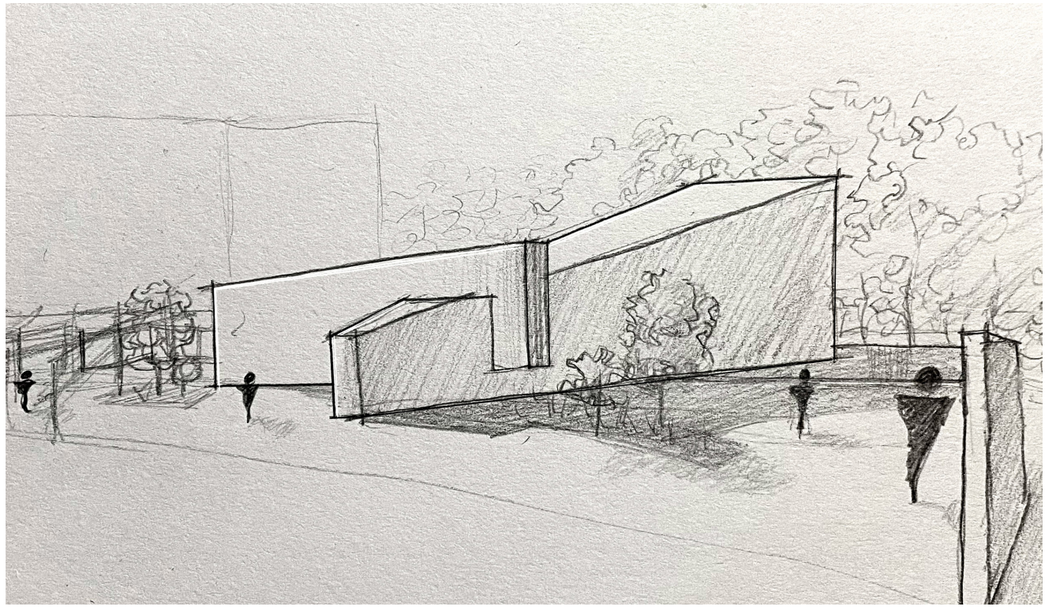
Concealed within the forest of monuments, the chapel serves as a sanctuary and spiritual focal point. It is strategically set back from the main circulation path, enhancing the sense of discovery for visitors. While the monuments are arranged to create pockets of space, carefully crafted benches mirror their forms, evoking the feeling of fallen trees in a woodland setting. As visitors progress further into the site, the funerary monuments gradually increase in height, seamlessly transitioning to the park beyond.

This progression orchestrates a journey from the urban environment to the unexpected experience of being enveloped in a chapel among the trees. The physical transition culminates in a spiritual elevation, as the final chapel space directs the gaze upward to the canopy of trees rather than downward to the bustling streets below.

Concept Sketch

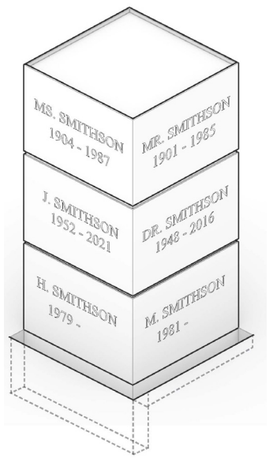


Final Axon Visualization

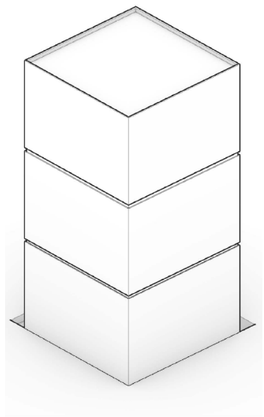


Concept Sketch

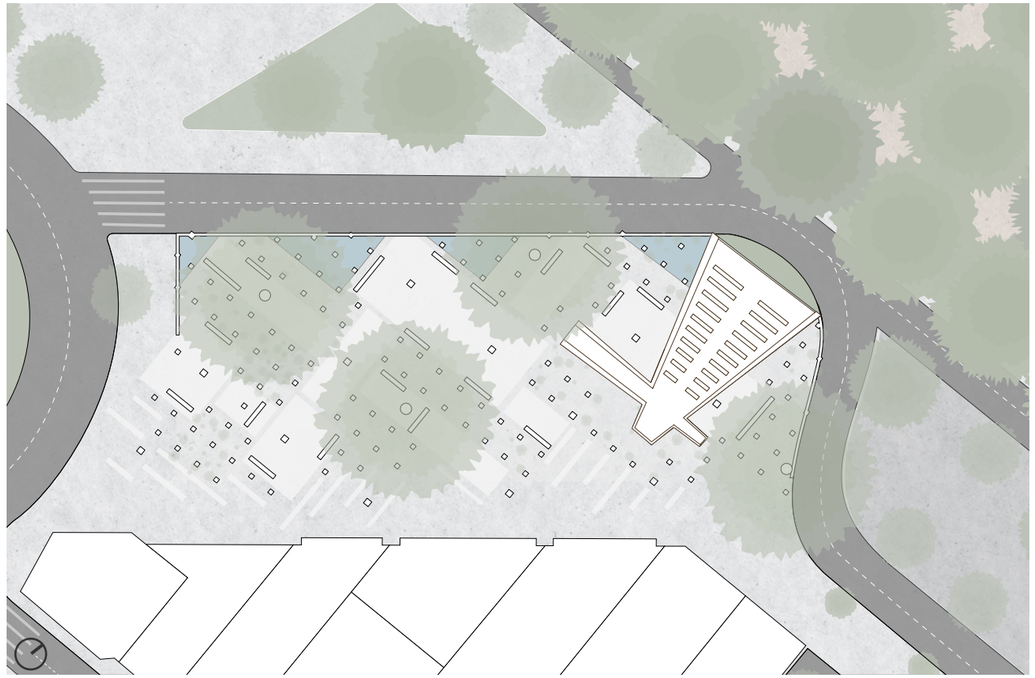
Space Usage



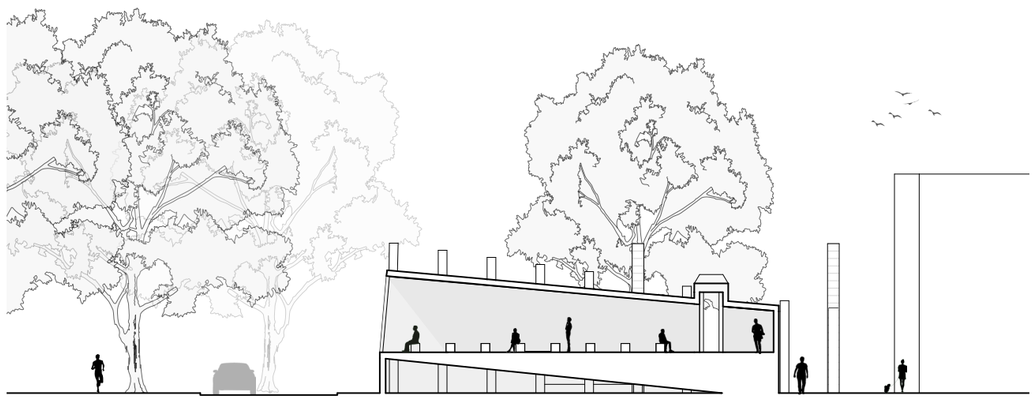
Monument Inner View



Monument Outer View



Plan



Section

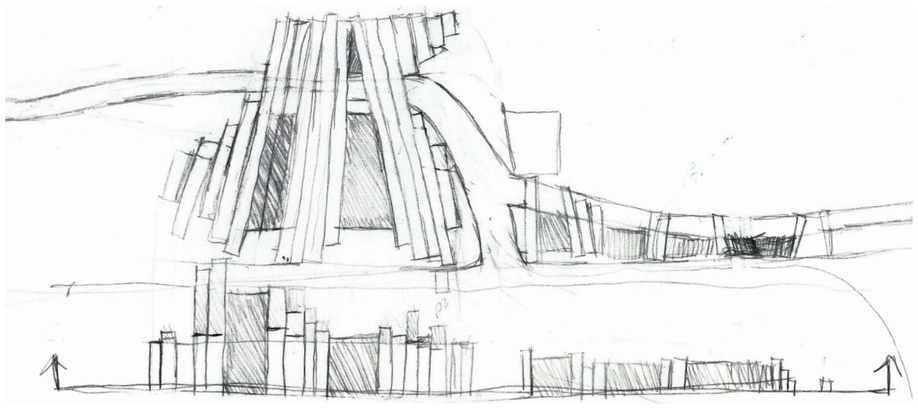
03

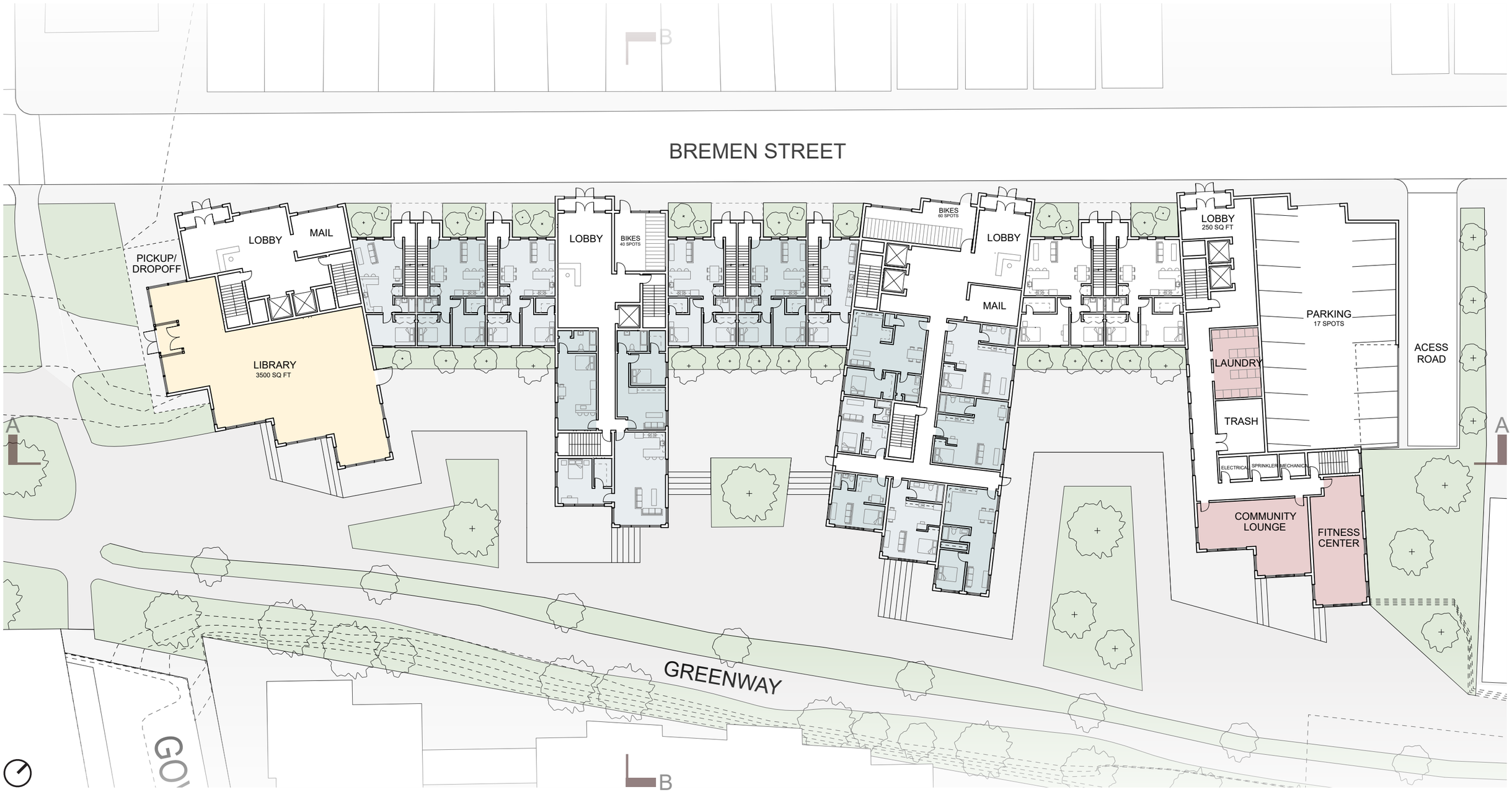
CLOSING THE GAP - EAST BOSTON HOUSING:
EAST BOSTON, MASSACHUSETTS: STUDIO 05 - FALL 2022

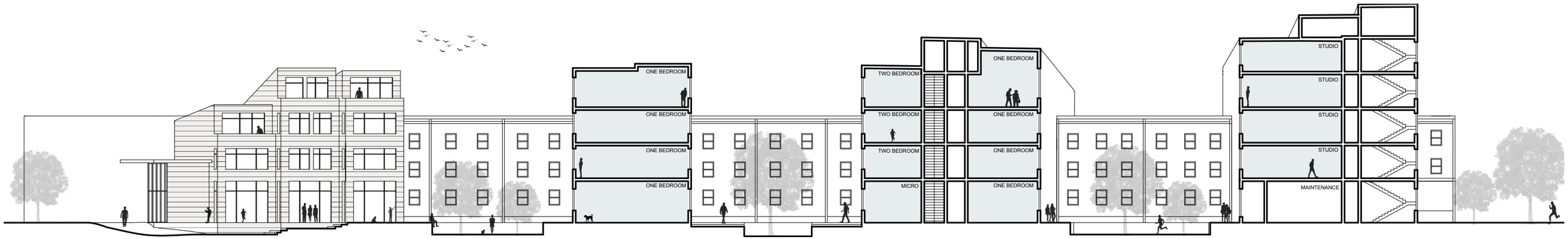
East Boston is one of the fastest developing areas of Boston, and is moving towards a future of higher density and higher quality housing. This under-served neighborhood has a physical gap between existing and new buildings, and a gap in community resources for current residents.

With proximity to the waterfront, public transportation, and main commercial hub of East Boston, the parcels around the greenway feel underdeveloped, as if a piece of the East Boston neighborhood fabric was removed, leaving barren parking lots. These sites have the potential to bridge the old and new developments, enhance the greenway experience, and bring the vibrancy the residents crave.

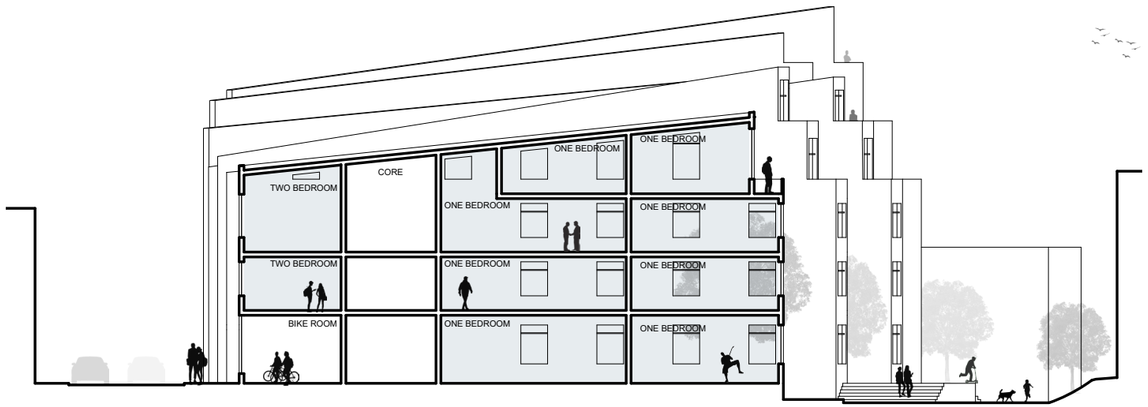
Stitching the urban fabric back together requires the proposed building to not only look like an extension of East Boston, but to also have the infrastructure to improve the vitality of the existing neighborhood. The main consideration of design is that balance of introducing a higher density of housing to meet rising demands, while respecting the scale of the existing residential district to maintain East Boston's character.




BREMEN STREET
LOBBY
MAIL
PICKUP/
DROPOFF
LIBRARY
3500 SQ FT
LOBBY
BIKES
40 SPOTS
BIKES
60 SPOTS
LOBBY
MAIL
LOBBY
250 SQ FT
PARKING
17 SPOTS
ACESS
ROAD
LAUNDRY
TRASH
ELECTRICAL
SPRINKLER
MECHANICAL
COMMUNITY
LOUNGE
FITNESS
CENTER
A
A
B
B
GREENWAY



Section A-A



Section B-B

Typical Residential Floor Plan

Variety of Housing Types

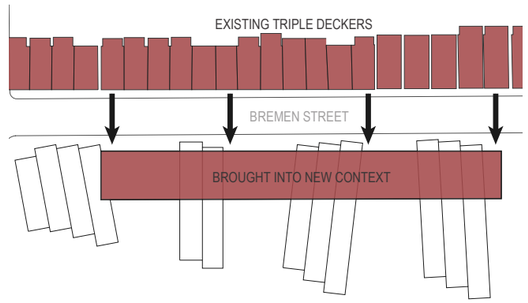
Single Oriented (South,East,West): 45%
Double/Triple Oriented: 55%
Single Oriented (North): 0%

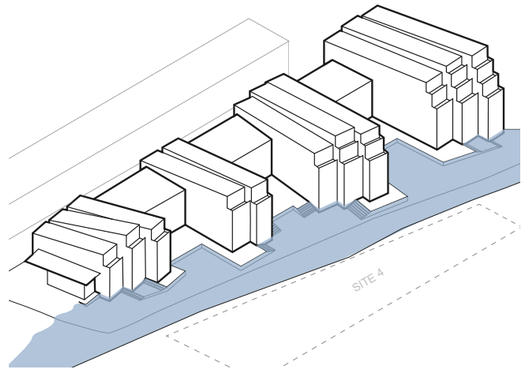
Housing Mix

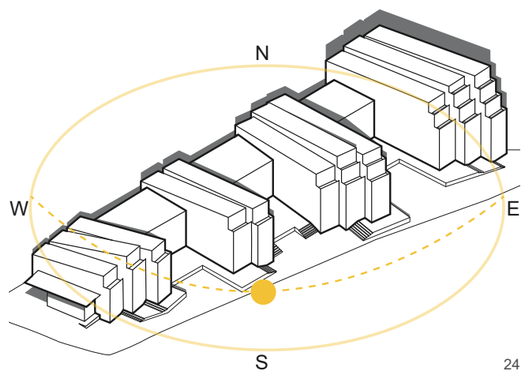
Market Rate: 40 Units
Affordable: 80 Units
Total: 120 Units

Key

Micro
Studio
1 Bdrm
2 Bdrm







Vernacular triple deckers are mirrored onto the site, grounding the structure to its surroundings. Longer, high-rise masses provide density while maintaining the height scale of the street and sloping up towards higher buildings of the neighboring sites.
The back of the site terraces and creates space of relief for pedestrians along the greenway, inviting them to sit and enjoy the space, while also helping to absorb flood water and protect the ground level housing from water damage.

04

TEACHING MUSEUM FOR THE MECHANICAL ARTS:
CAMBRIDGE, MASSACHUSETTS: STUDIO 04 - SPRING 2022

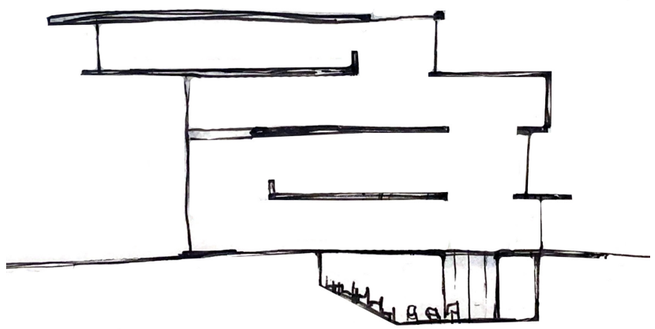
“Diderot’s conception of the mechanical arts as a category of useful knowledge just as valuable as the liberal arts and sciences was a provocative challenge to long-standing prejudices against manual labor. Diderot sought to counter them by showing the complexity, creativity and skill of even the most humble mechanical arts.”

- MIT Library

The premise of this design project was the construction of a dedicated building at MIT to house, study and display all 16 volumes of Diderot’s Encyclopedia. The new
building, a Teaching Museum for the Mechanical Arts, would include a rare book library and study rooms, gallery spaces,teaching spaces such as classrooms, lecture halls and an auditorium, maker spaces and workshops, and places to gather and socialize.

My initial sketch was designed in section, challenging the design proess I had been using for my past projects, and learning to translate my sectional ideas into plan. The final visualization of my project is the result of many iterations, redesigns, and new ideas that stemmed from that sketch. This project encapsulated almost an entire semester, spanning three phases meant to develop deeper meanings and push our design and representation skills further.

My main design considerations came from the site context and how its position between campus and main street can easily offer itself to accomodate both students and visitors, and lend itself to a variety of people. This design process pushed the concept of mechanicality to the forefront.



Campus Facing Exterior Render

The central idea of our future concept was tasked to be a 19th century mechanical device chosen from Denis Diderot's orignal encyclopedia published during the Enlightenment Era. I chose to work with the loom. I was initially drawn to the images and ideas of weaving and how one might move themselves through a space that is physically woven together. However, before we were allowed to think of how certain characteristics can translate to architecture, our first assignment was to create an analytique that depicted the motion and mechanicality of our chosen device, as well as a scale model of the device.

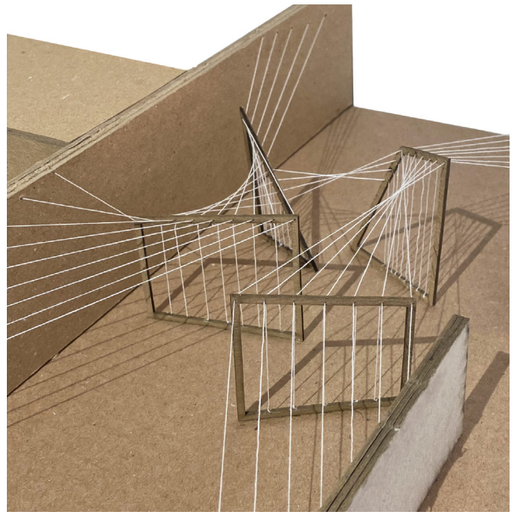
In the final analytique, pictured to the right, the story of the loom is told through the journey of the thread being woven into a work of art. Starting in the top right corner, flax is wound into string and threads, and these threads are fed through the machine, as operated by a human, and come out as a finished tapestry running up the left side.

Furthermore, the process required a threshold folly model inspired by this machine, shown below. The threshold operates in two axes, using the motion of weaving to create frames that guided circulation between both routes. These were anchored to the surrounding retaining walls, using tensegrity to keep the panels in place.

"I believe that architecture is fundamentally a public space where people can gather and communicate, think about the history, think about the lives of human beings, or the world."

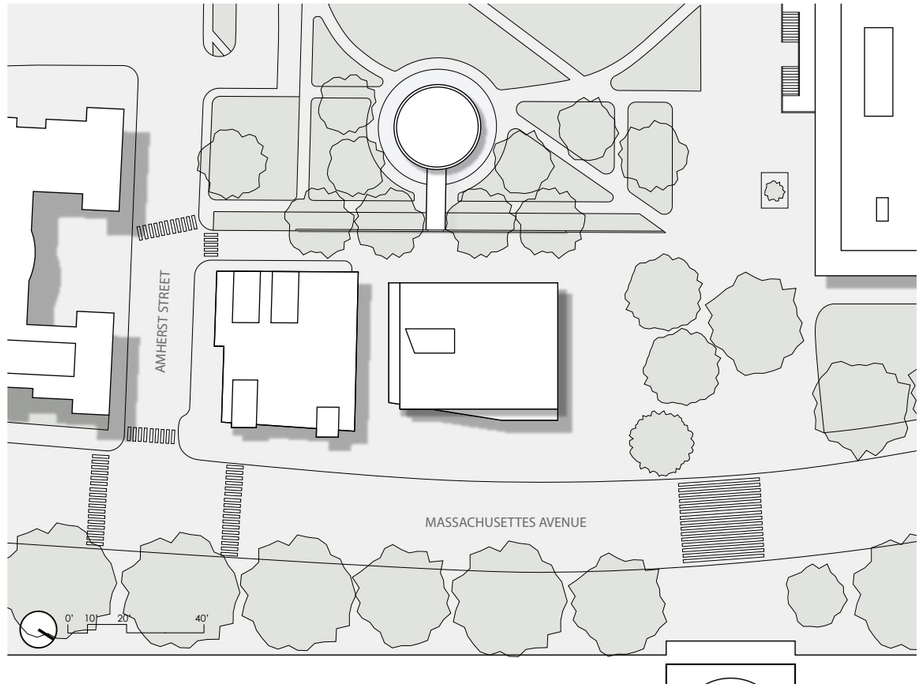
- Tadao Ando

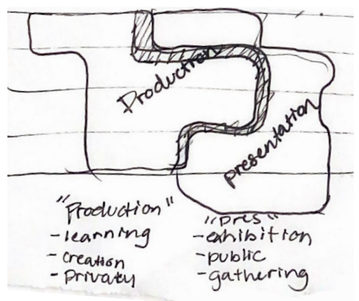
Working 1/2" = 1'-0" Loom Scale Model



Threshold Folly

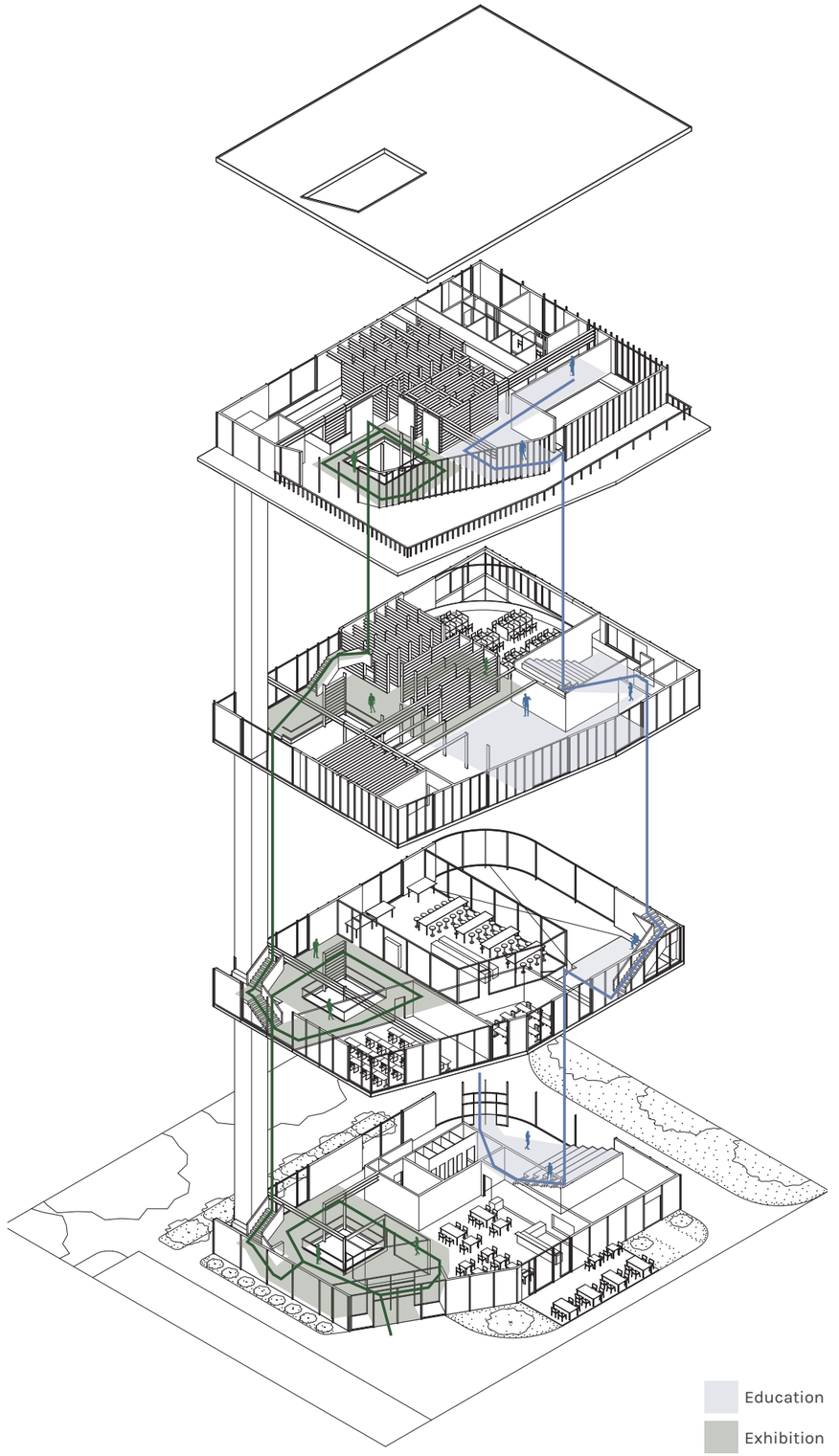
PASSEMENTARIE
MAKING LOOM

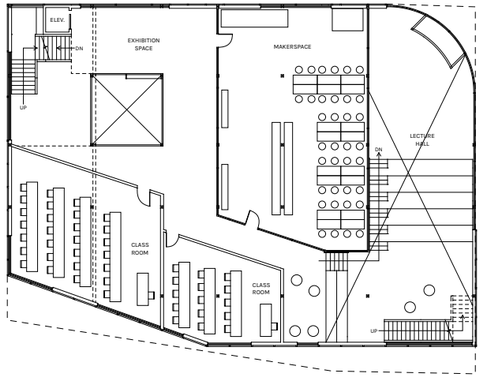




Influence of Site

The site is off of a busy road and adjacenct to the MIT campus central quad. The potential of this siting worked well with the program requirements program that can be categorized into a public experience where visitors can go to the auditorium or exhibition spaces, and a student experience involving lecture halls, classrooms, and makerspaces. As a result, the building has two entrances on opposing sides, one on the main road focusing on reception of visitors and opens into exhibition, and the MIT campus facing entrance that is more relaxed for students and offers seating and socialization areas before moving directly to the education based program.





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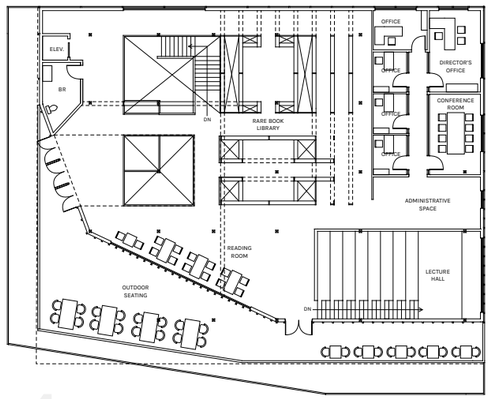

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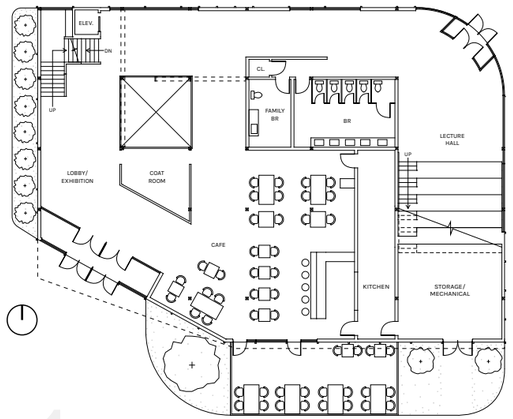

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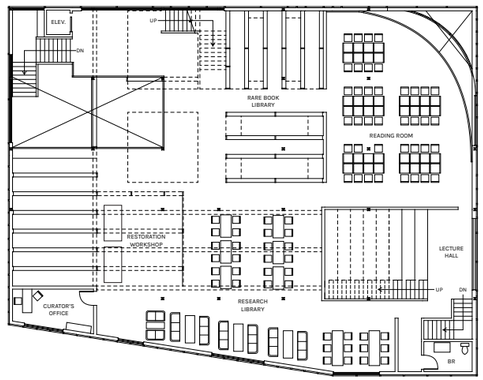


3

The public “Exhibition” pathway is confined to a loop that ascends each floor and is placed around a hole. Double height spaces accentuate the contunuity between floors and allow one to feel the connection between the library shelves that encapsulate the entire building.

The “Education” based program borders the outskirts of the central exhibition loop to become a moving piece of the museum experience where visitors may observe students working and learning from a distance.

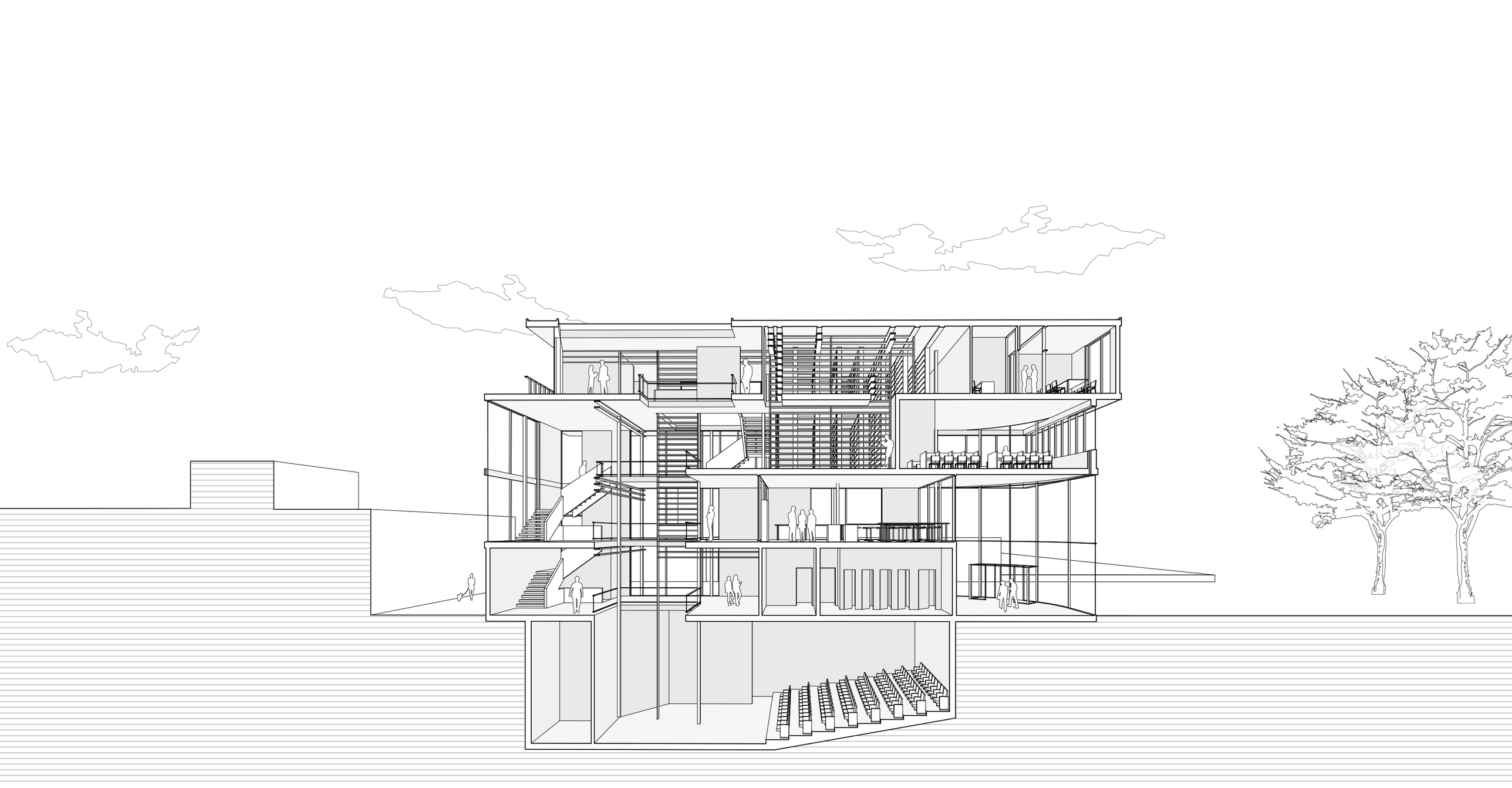
Visual connections between visitor and student are bridged and diffused through the shelves of the Rare Book Library itself. The extending arms of the bookcases reach into multiple spaces vertically and horizontally throughout the entirety of the building while also weaving sseamlessly into the column structure.

The mechanical connection is expressed in the facade as vertical facade pieces are placed more or less dense depending on the density of bookcases within. By creating a connection between the utility and functional aspects of structure with the core program, the building becomes interactive and connective, while fostering social connections between varying programs.

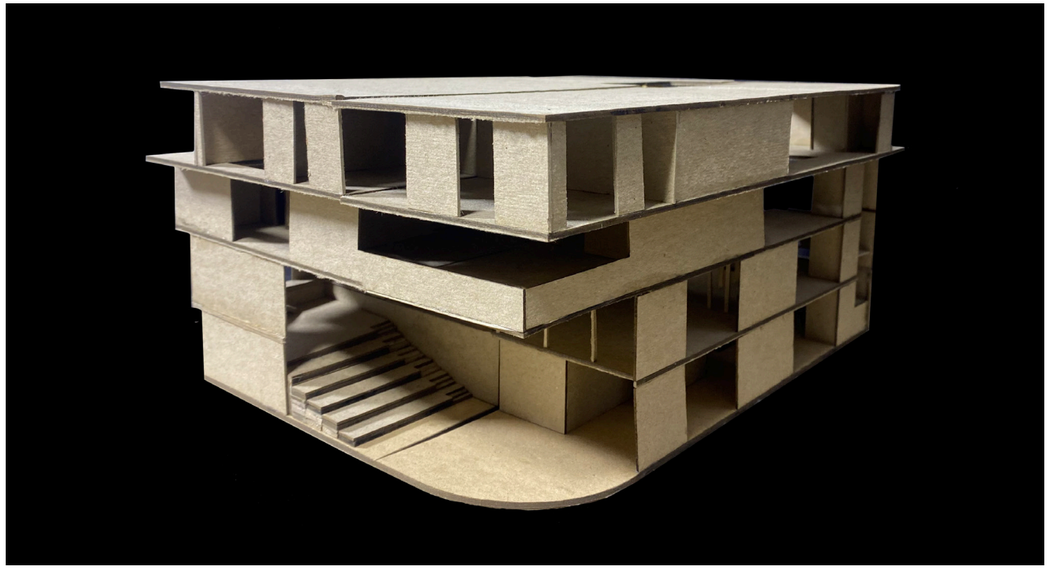
Multi-Story Exhibition Space

Third-Floor Study Library

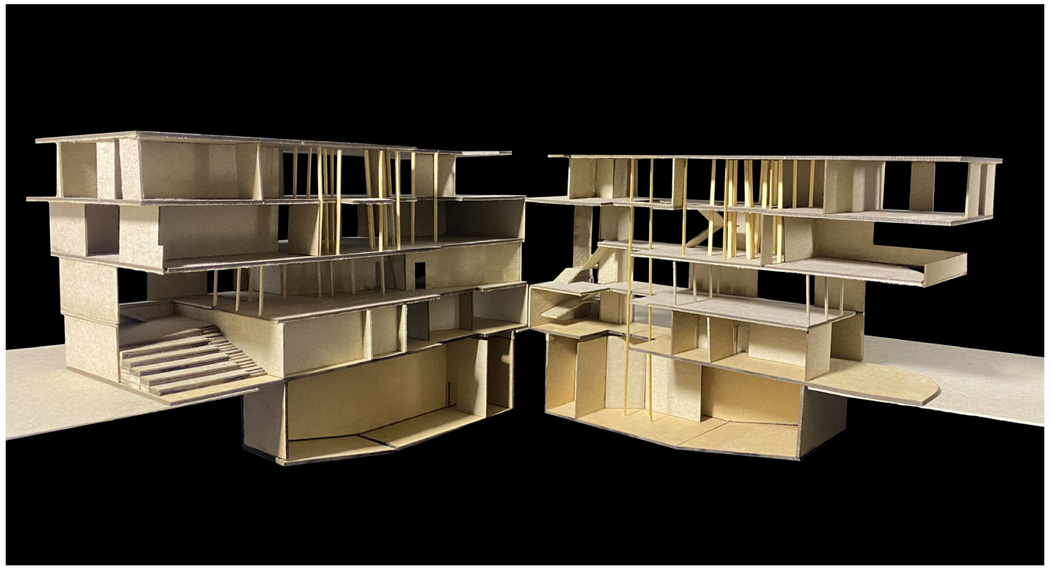
Campus Facing Entrance



Street Facing Exterior Render



Campus Facing Entrance - Closed Model



Open Section Model

05

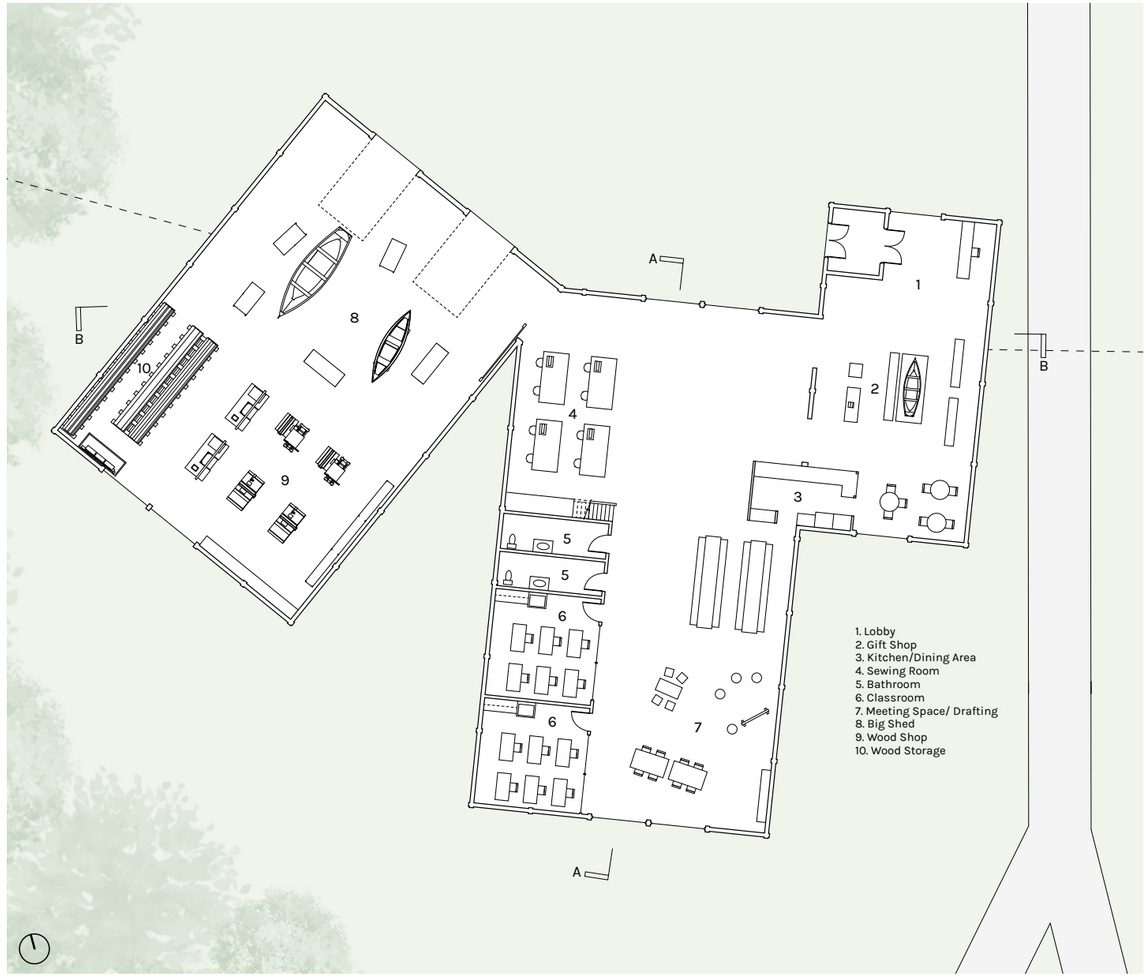
WOODEN BOAT BUILDING SCHOOL

BROOKLIN, MAINE: STUDIO 03 - FALL 2021

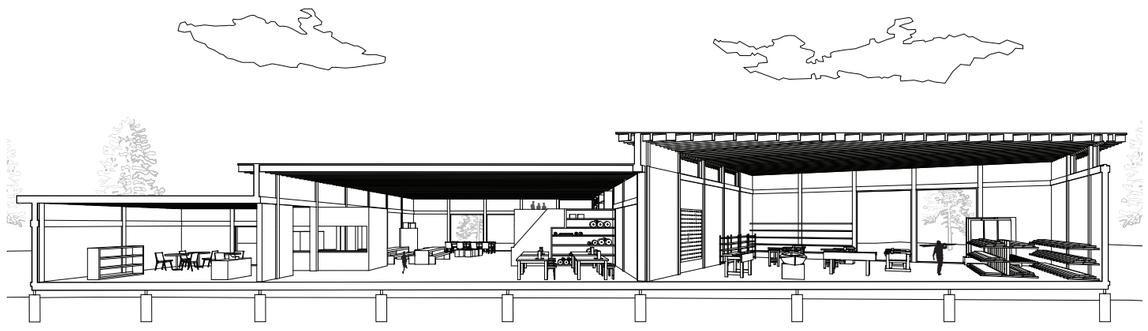
The knowledge of location, materials, climate, and culture is fundamental in the pursuit of a sustainable architectural footprint. In this rural site of Maine, wood is the material that the local economy and ecology can provide. In an effort to be thoughtful and effective agents of the land, the new Boat Building School will be built primarily out of wood with selectively harvested lumber from a neighboring forest. The building's interior employs exposed wood framing to invoke the rustic character of the town dubbed "The Boatbuilding Capital of the World". Combining traditional elements of the area with contemporary forms and functions such as a flat roof and open plan creates a modern look for the school while still maintaining the connection to the vernacular and surrounding environment.

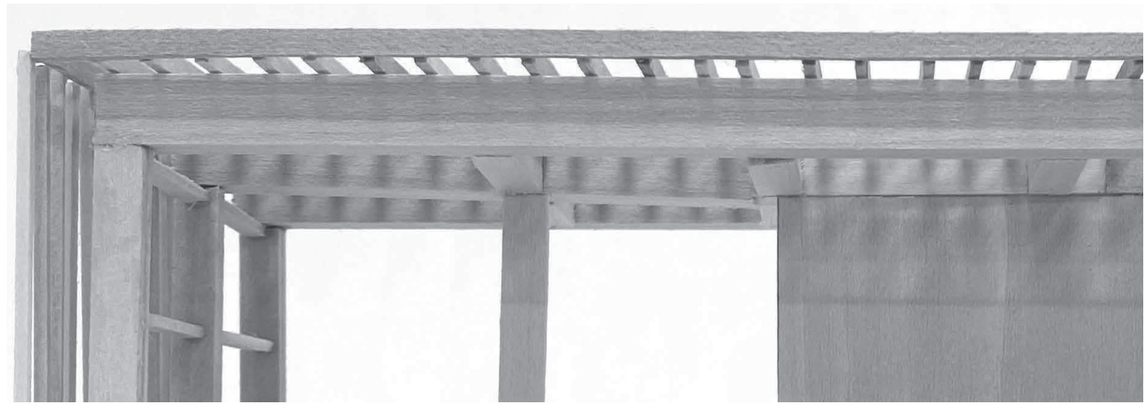
As a bridge between rural vernacular design and contemporary style and rationale, the Wooden Boat Building School takes on the unique role of providing visitors a connection to an ancient craft, while still providing a functional working and learning space for those who occupy the space daily.

Site Plan

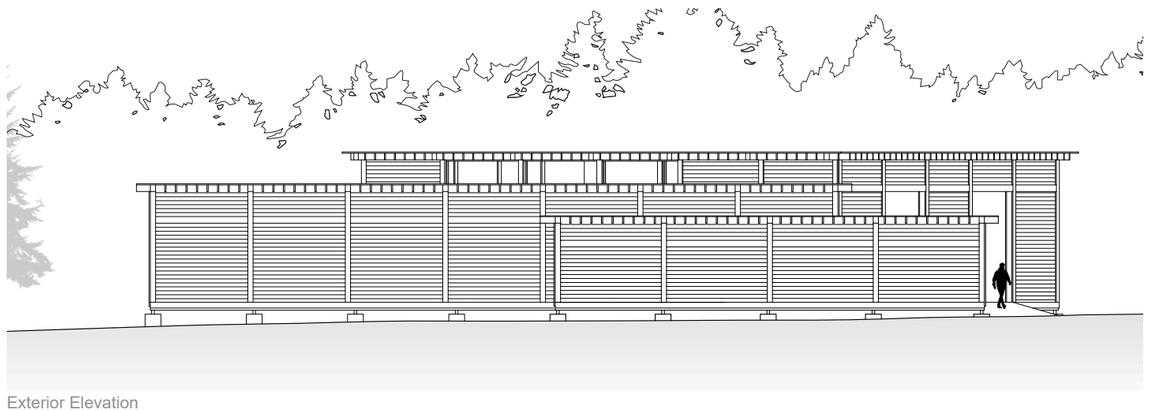


First Floor Plan

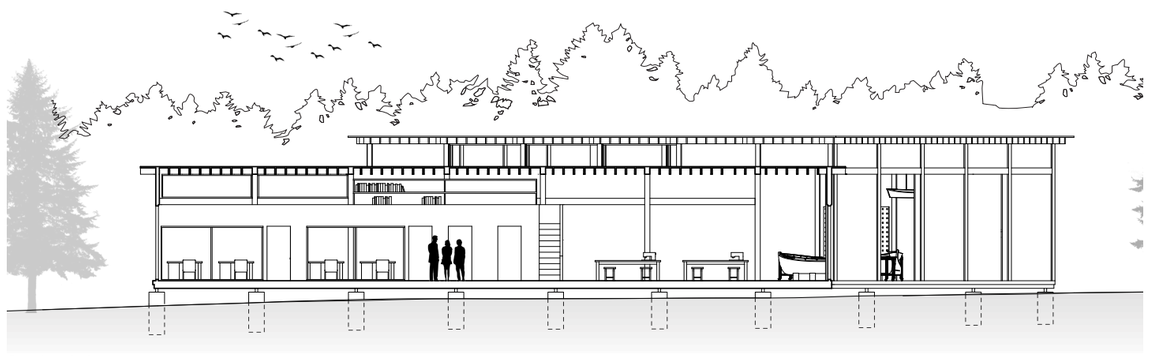




Framing Model Detail



Exterior Elevation



Section A-A

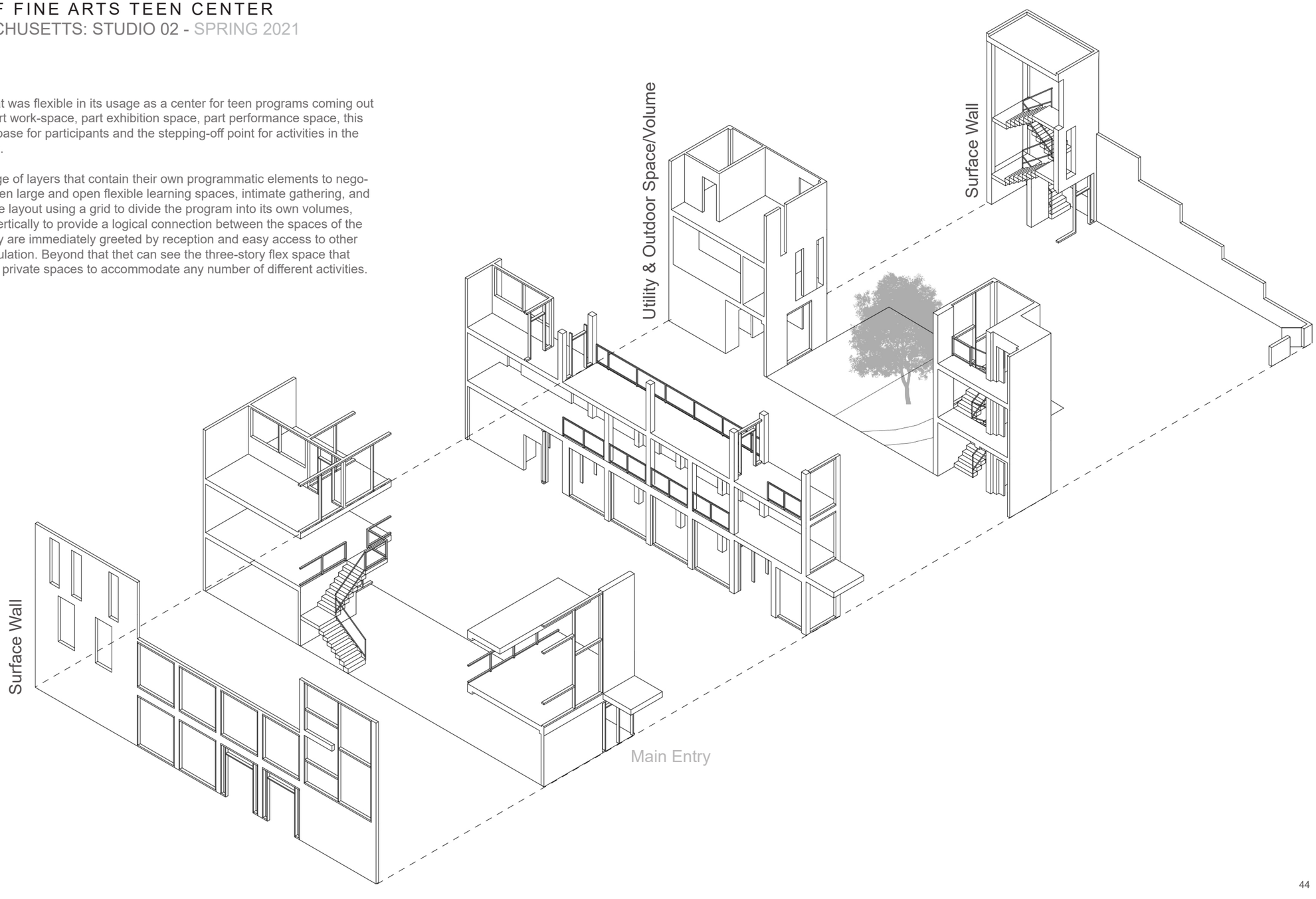
06

MUSEUM OF FINE ARTS TEEN CENTER

BOSTON, MASSACHUSETTS: STUDIO 02 - SPRING 2021

This project brief called for a building that was flexible in its usage as a center for teen programs coming out of the adjacent Museum of Fine Arts. Part work-space, part exhibition space, part performance space, this new building was intended to the home base for participants and the stepping-off point for activities in the behind-the-scenes areas of the museum.

My concept was based on an assemblage of layers that contain their own programmatic elements to negotiate a user's sequential transition between large and open flexible learning spaces, intimate gathering, and vertical circulation. I originally created the layout using a grid to divide the program into its own volumes, each section grouped horizontally and vertically to provide a logical connection between the spaces of the building. When a user initially enters they are immediately greeted by reception and easy access to other parts of the building through vertical circulation. Beyond that thet can see the three-story flex space that houses movable furniture, teaching, and private spaces to accommodate any number of different activities.



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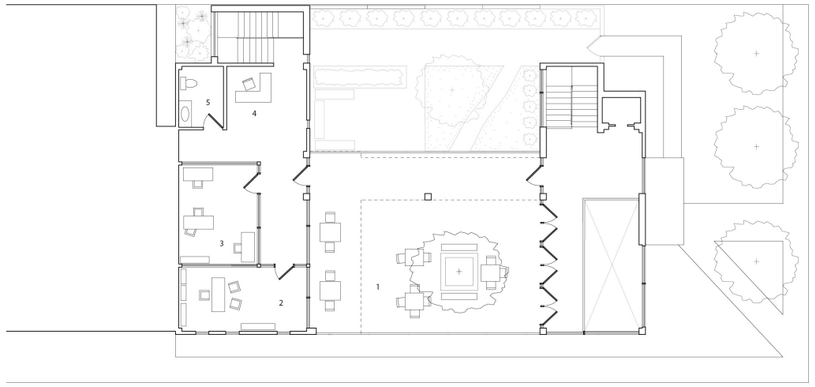
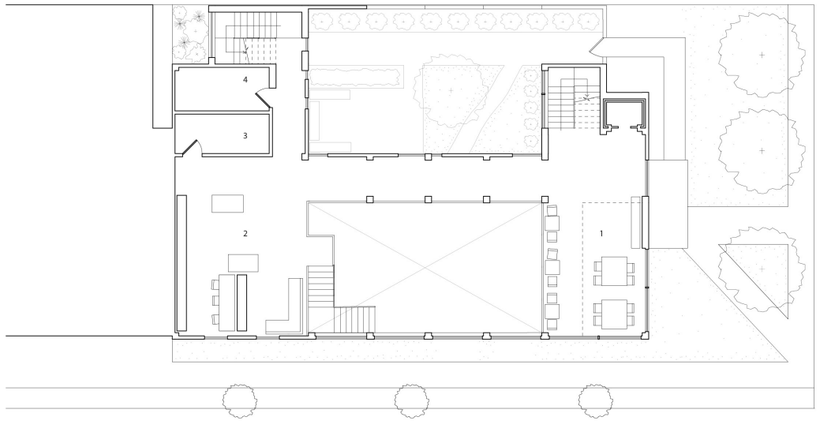


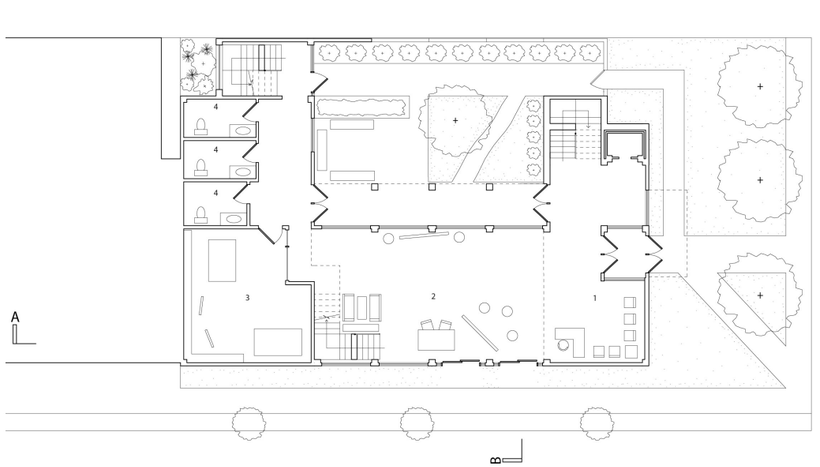
1. Roof Terrace
2. Director's Office
3. Program Leaders Office
4. Administrative Space
5. Bathroom

2



1. Library
2. Flex Space
3. Delivery/Storage Room
4. Mechanical Room

1



1. Reception
2. Flex Space
3. Curation Room
4. Bathroom

To organize the program of the building in the most functional way for use and circulation, the most public and busy areas are on the ground level and have direct street access. The climate controlled Curation Room also resides on the ground floor and has glazing so that visitors may observe the art restoration process. The floor above becomes a library on both sides above flex space, and is joined by a walkway that gives one the opportunity to glance either direction into the flex or outdoor space below. The flex space retains its hierarchical importance as the center piece. The third floor transitions into a quieter private office area that is still visually welcoming and connected to the rest of the building through transparent materials. It has access to the roof terrace which provides another way for people to interact.

Providing green-space within city environments is vitally important and provides countless benefits to users of a space. This building has a large back garden that is protected from the street traffic and equipped with areas for small or large gatherings. The roof is utilized as an outdoor working or lounge space with greenery and seating.

In section, the building reaches itself into each third of program to connect the spaces visually and physically, and has no hard thresholds in between, so that each area of program flows easily from one to another.

A-A

B-B

Entry View

Exterior

2nd Floor Library

First Floor Exterior Corridor

Third Floor Interior

Outdoor Rooftop Space

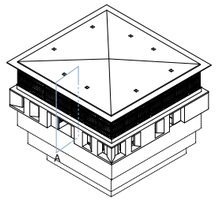
07

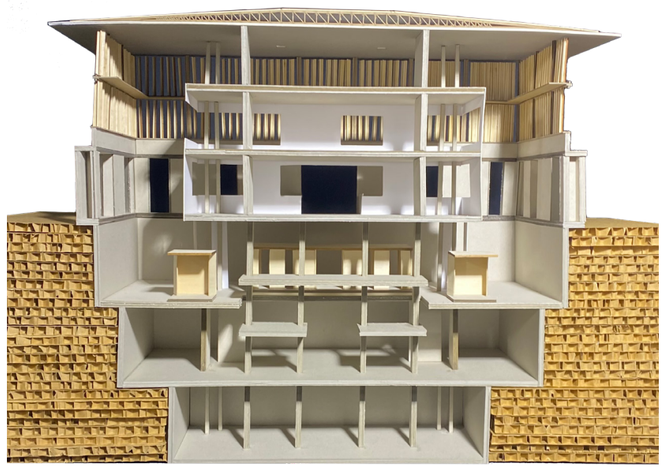
LILAVATI LALBHAI LIBRARY PRECENDENT STUDY

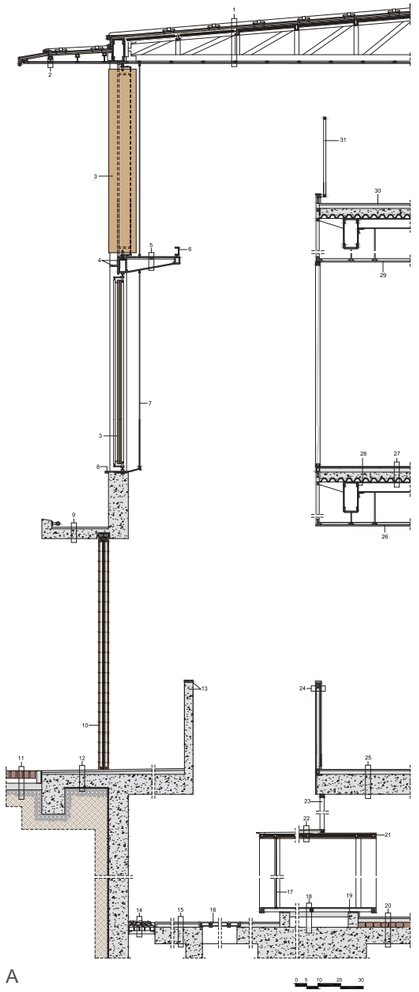
AHMEDABAD, INDIA: STUDIO 04 - SPRING 2022

COLLABORATORS: J. HARRISON, M. O'CONNOR, K. SENAT

This precedent study focused on the building's structural envelope and facade, requiring an in depth understanding of the many systems that compose the building. RMA Architects worked with the challenge of Ahmedabad's hot and dry climate to develop an innovative solution to cooling the future campus hub. Bridging the gap between the historic campus and the modern construction resulted in adjustable louvres and a three-layer basement to allow for passive cooling and climate control. The creation of the pictured physical model was a group effort, but the drawings on this page are my own work.







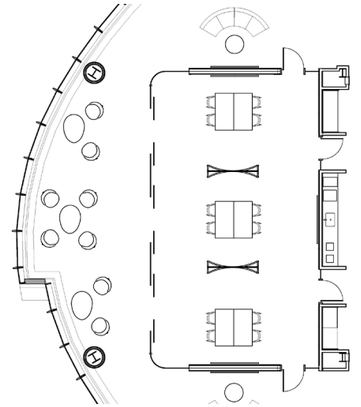
A

08

PROFESSIONAL EXPERIENCE

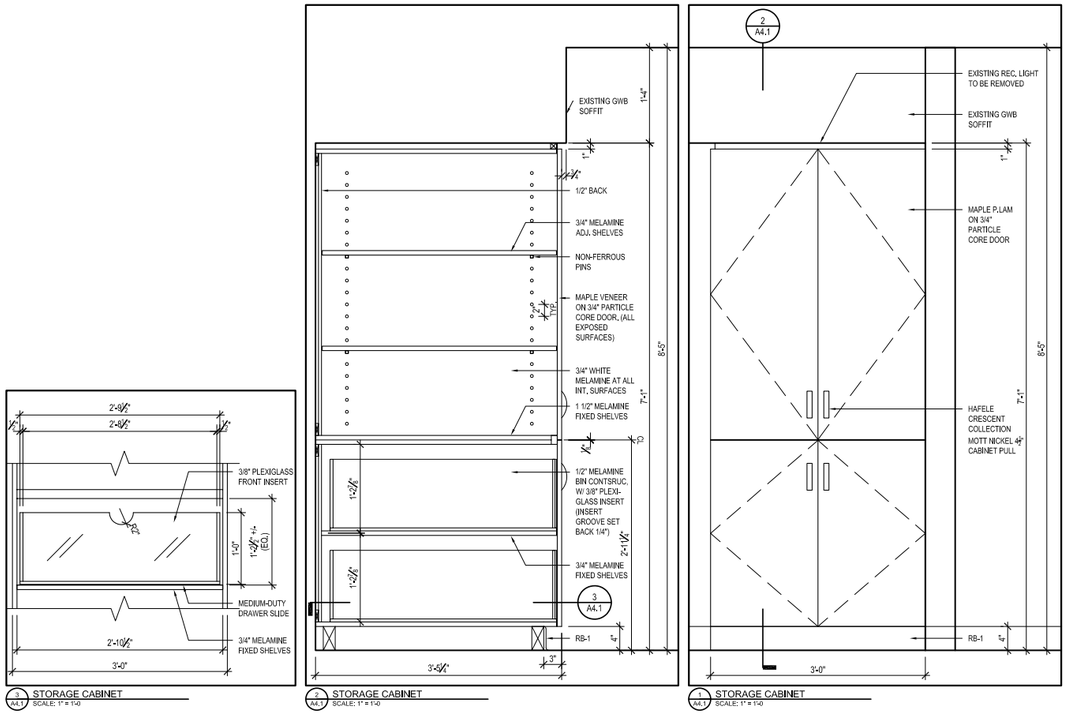
PAUL LUKEZ ARCHITECTURE - SPRING & SUMMER 2023

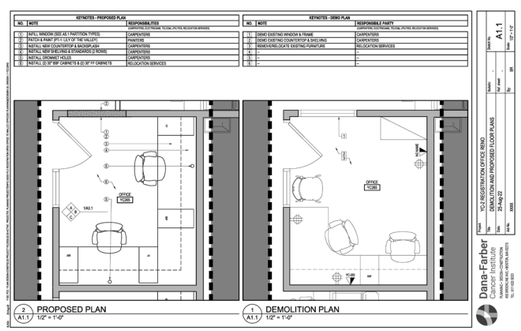
At Paul Lukez Architecture, I worked on a diverse array of projects, spanning from home renovations to expansive corporate office interior designs. My responsibilities included generating plans, sections, details, as well as crafting intricate 3D models using Revit or Rhino. Additionally, I played a pivotal role in enhancing project presentations by developing compelling graphics and illustrations that underscored design concepts. Leveraging tools such as Adobe and Revit, I produced renderings, models, and graphics tailored for architectural competitions, research endeavors, and various marketing-related activities. This experience not only honed my technical skills but also deepened my understanding of the multifaceted aspects of architectural practice.

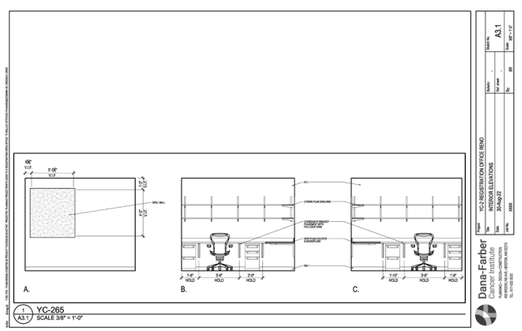


DANA FARBER ARCHITECTURE DEPARTMENT - SUMMER 2022

At Dana Farber, I was given the opportunity to experience the project management side of architecture, engaging in all parts of the design process, albeit at a smaller scale. Even as an intern, I had the duty of communicating and working directly with the users to go through the phases of schematic design layout of offices and other working spaces. I assembled full CD sets for a few projects and worked on details more in depth, such as the cabinet drawing pictured below. I followed my projects fully through construction and punch listing, and worked alongside the project managers to create various diagrams and drawings while witnessing how to professionaly coordinate with the numerous different in-house teams.

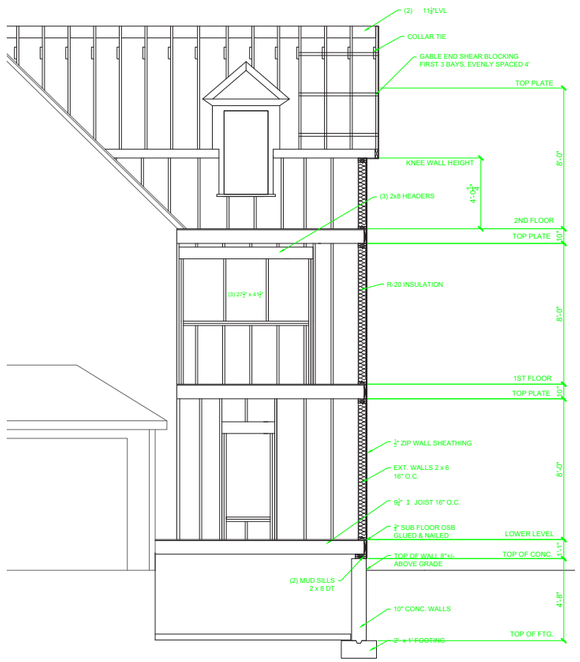


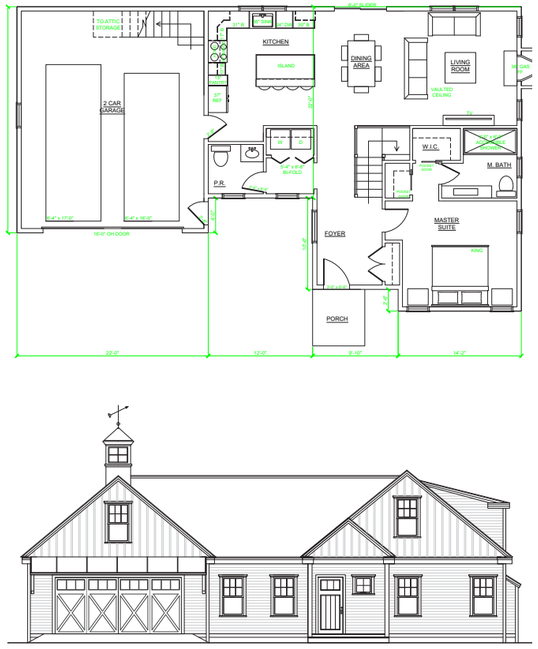


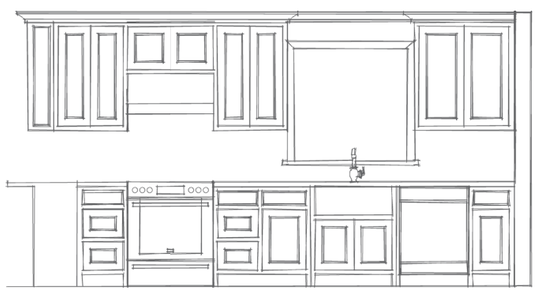


PIONEER CUSTOM BUILDERS - 2019-2022

During my time as a CAD Drafter, I collaborated closely with a senior designer to produce a wide array of architectural drawings, including kitchen and custom millwork designs, plans, sections, and detailed construction drawings. I contributed to the development of efficient designs and assisted in drafting comprehensive sets of construction documents, ensuring adherence to complex project design specifications. Additionally, I played a key role in coordinating architectural construction drawings across various project phases, managing drawing sets and templates to facilitate seamless project progression. I gained invaluable experience in technical drafting and millwork design, transforming rough field sketches and dimensions into precise working plans, elevations, and final construction documents.







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